



HQ HOLDEN service manual

CONTENTS

BODY AND SHEET METAL

GENERAL MOTORS-HOLDEN'S SALES PTY. LTD.

SERVICE DIVISION

A HOLDEN PUBLICATION

**VOL
1**

HQ HOLDEN SERVICE MANUAL

VOLUME 1

FOREWORD

Designed as a reference book for the competent mechanic and a step by step procedure for the less experienced, this Manual provides complete descriptive information, maintenance and repair data on the HQ Holden.

To use the index, bend the manual back to expose the black section marks on the pages. Locate the corresponding black section mark on the pages of the section you desire to find.

Where warranted, a more detailed table of contents preceeds each section and an alphabetical index is included in the back of the manual.

Space is provided at the back of each section for noting any additional service information received, subsequent to the publication of the Manual, through the medium of Service Bulletins.

The special tools illustrated are essential for the efficient servicing of the HQ Holden and are available through major tool distributors.

The terms used in the description of operations are:
REMOVAL AND INSTALLATION — meaning simply to remove or take out a unit or parts of a unit, and to put back the same unit or parts of unit.

DISASSEMBLY AND ASSEMBLY — means to completely dismantle and put together a unit or parts of a unit after it has been removed from the vehicle.

REPLACE — means the substitution of a new part for a defective part.

All information, illustrations and specifications contained in this manual are based on the latest product information available at the time of publication approval. The right is reserved to make changes at any time without notice.

Companion Volumes

2	SUSPENSION, BRAKES, STEERING, WHEELS	Part No. M.37016
3	TRANSMISSIONS AND REAR AXLES	Part No. M.37017
4	ENGINE AND GENERAL INFORMATION	Part No. M.37018
5	ELECTRICAL AND AIR CONDITIONING	Part No. M.37019

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**GENERAL MOTORS-HOLDEN'S SALES
PTY. LTD.
SERVICE DEPARTMENT**

PART No. M.37015

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SECTION 1

GENERAL INFORMATION

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MANUAL DESCRIPTION

Index

Page 1 - 1 contains a "Manual Index" which lists the section number and subject title of each body section. The first page in the major sections has an index to the subjects included in that section. An alphabetical index covering the entire manual is located in the back of the manual.

Page and Figure Numbers

All page and figure numbers consist of two sets of digits separated by a dash. The digits preceding the dash identify the main body area section. The digits following the dash represent the consecutive page number or figure number within the particular body section.

Text

Unless otherwise specified, each service procedure covers all body styles. Procedures covering specific styles are identified by the model number or style. Model names with their corresponding numbers are covered on this page under "Model Identification".

Illustrations

Where possible, illustrations are placed in close proximity to the accompanying text and should be used as part of the text.

MODEL IDENTIFICATION

(Right Hand Drive Only)

ENGINE		DESCRIPTION
L-6	V-8	
HQ80135	HQ80235	Belmont Station Sedan
HQ80169	HQ80269	Belmont Sedan
HQ80170	HQ80270	Belmont Panel Van
HQ80180	HQ80280	Belmont Coupe Utility
HQ80335	HQ80435	Kingswood Station Sedan
HQ80337	HQ80437	Monaro Coupe
HQ80369	HQ80469	Kingswood Sedan
HQ80380	HQ80480	Kingswood Coupe Utility
	HQ80837	Monaro GTS Coupe
HQ81135	HQ81235	Premier Station Sedan
HQ81169	HQ81269	Premier Sedan
HQ81137	HQ81237	Luxury Sports Coupe
	HQ81469	Statesman De Ville Sedan
HQ81569	HQ81669	Statesman Sedan
	HQ81837	Monaro GTS 350 Coupe

BODY IDENTIFICATION

Complete identification of each body is provided by a body identification plate, illustrated Fig. 1 - 1, attached to the upper left hand side of the shroud panel and is accessible when engine hood is raised. This plate must not be destroyed and if removed during body repairs, must be re-installed in its original location.

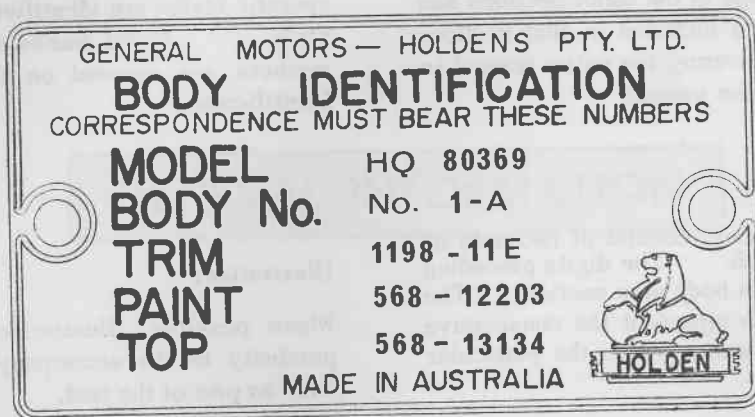


FIG. 1 - 1
BODY IDENTIFICATION PLATE

Model

The model number is a combination of letters and numbers identifying the body model and style.

Trim

The trim numbers represent the interior paint colour and trim combination.

Paint

The paint numbers represent the exterior paint material and colour identification of the basic or lower colour.

Body

The body number is a numerical reference followed by a suffix letter which denotes plant at which body was manufactured; i.e. A - Adelaide, B - Brisbane, M - Melbourne, S - Sydney and NZ - New Zealand.

Top

The top numbers represent the exterior paint material and colour identification of the roof or upper section of the body when it differs from the basic colour.

BASIC BODY CONSTRUCTION

The Holden 'HQ' Series bodies are of unitised construction. The independent front end chassis partial frame, which provides attachment for front end sheet metal, front suspension, engine, etc., is rubber mounted along both sides of underbody to rear of front door openings (see Fig. 1 - 2). Identification of major body and sheet metal assemblies are illustrated in Figs. 1 - 3, 1 - 4 and 1 - 5.

Since individual body and underbody steel components contribute directly to the overall strength and rigidity of the vehicle as a whole, it is essential that correct alignment, welding, rust proofing and sealing techniques be observed during body service and repair operations.

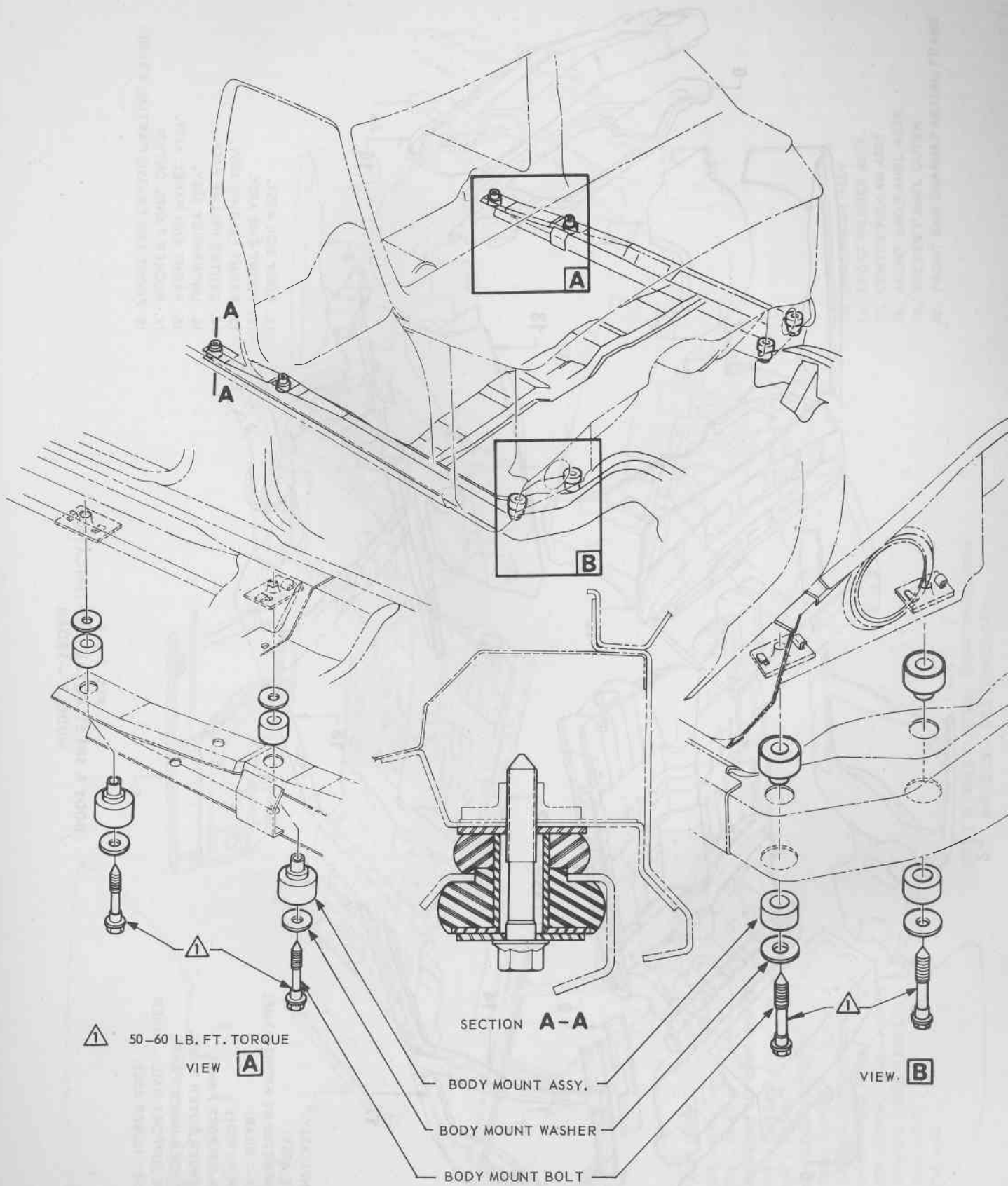


FIG. 1 - 2
BODY MOUNTING

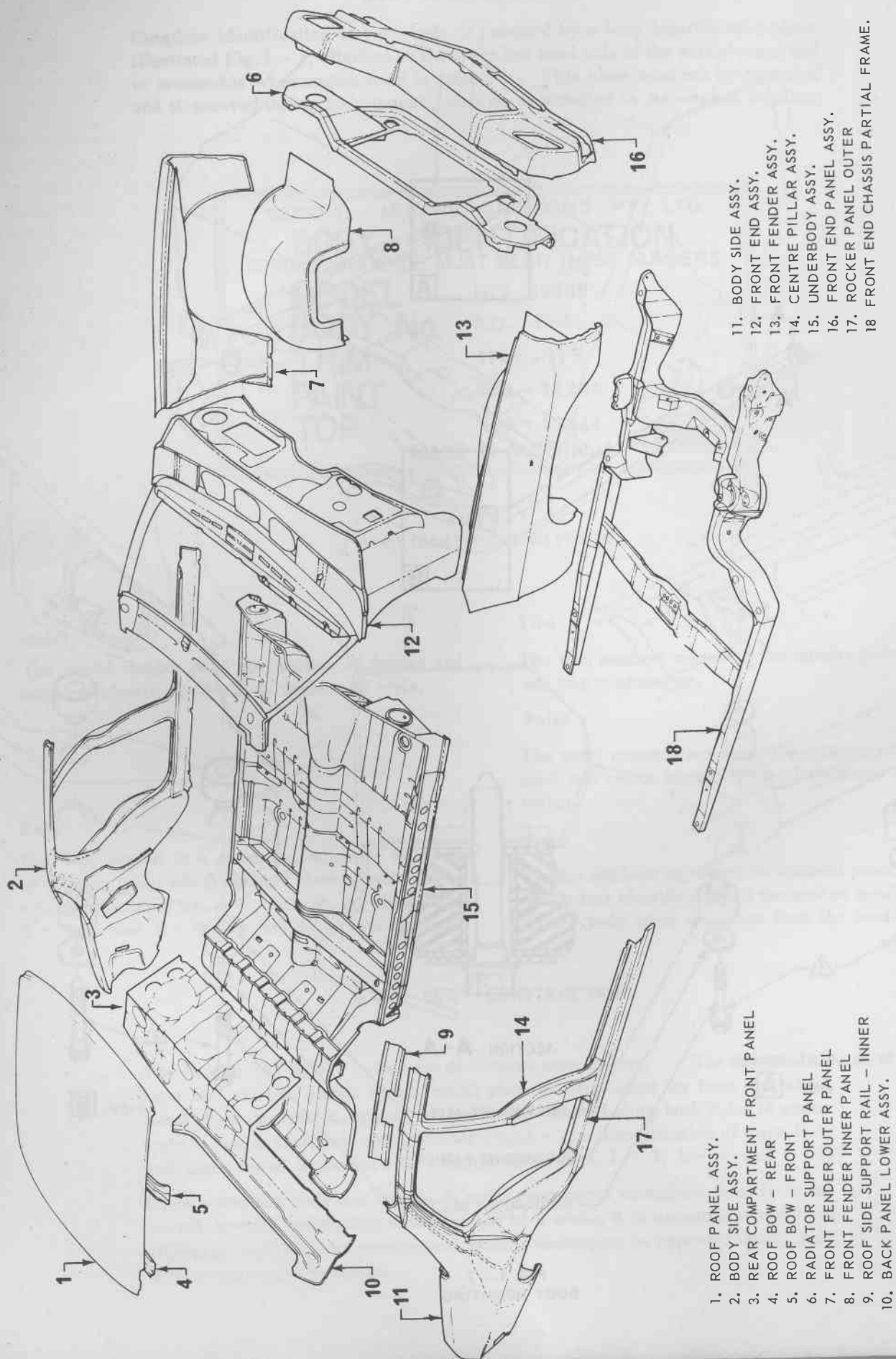
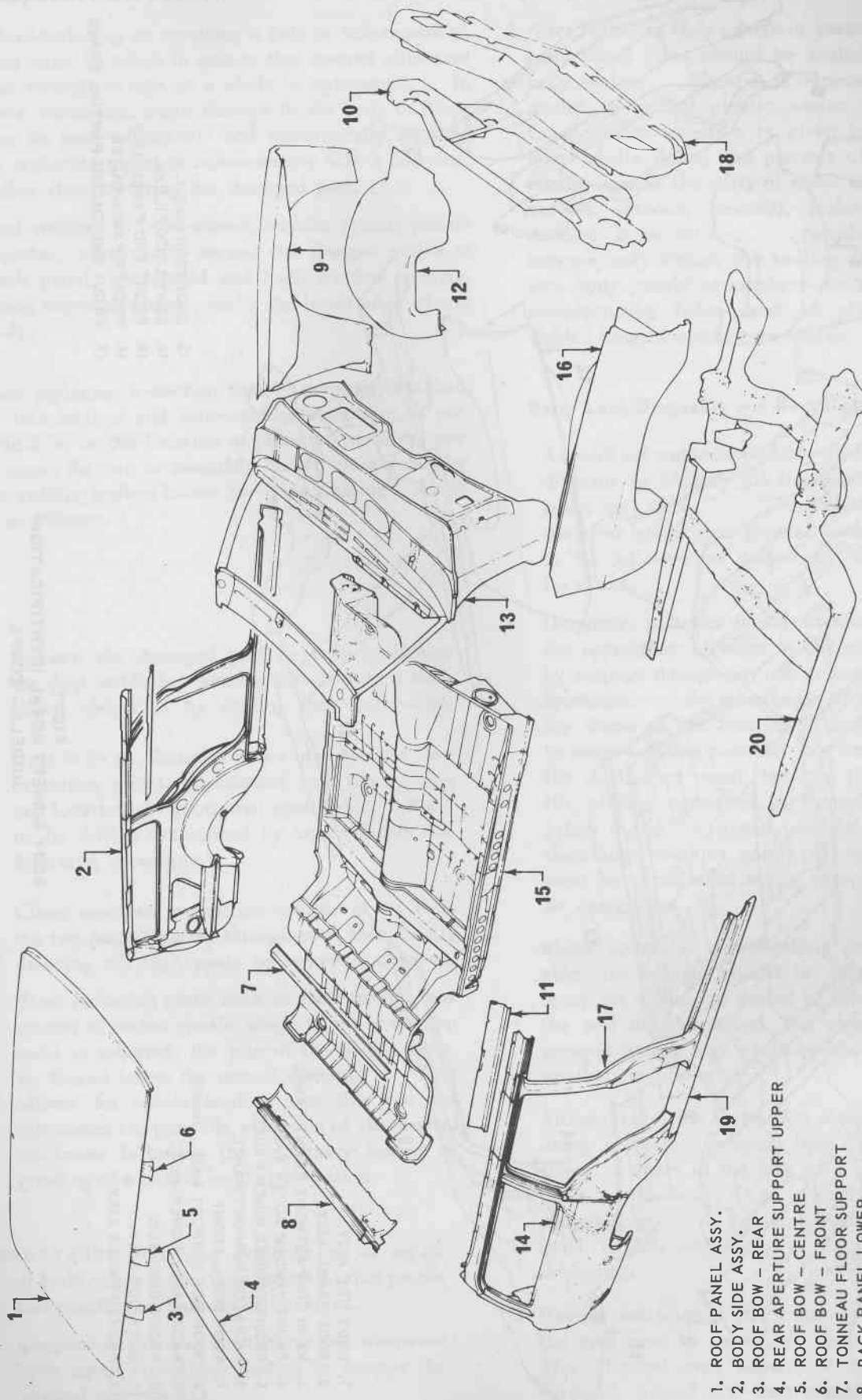


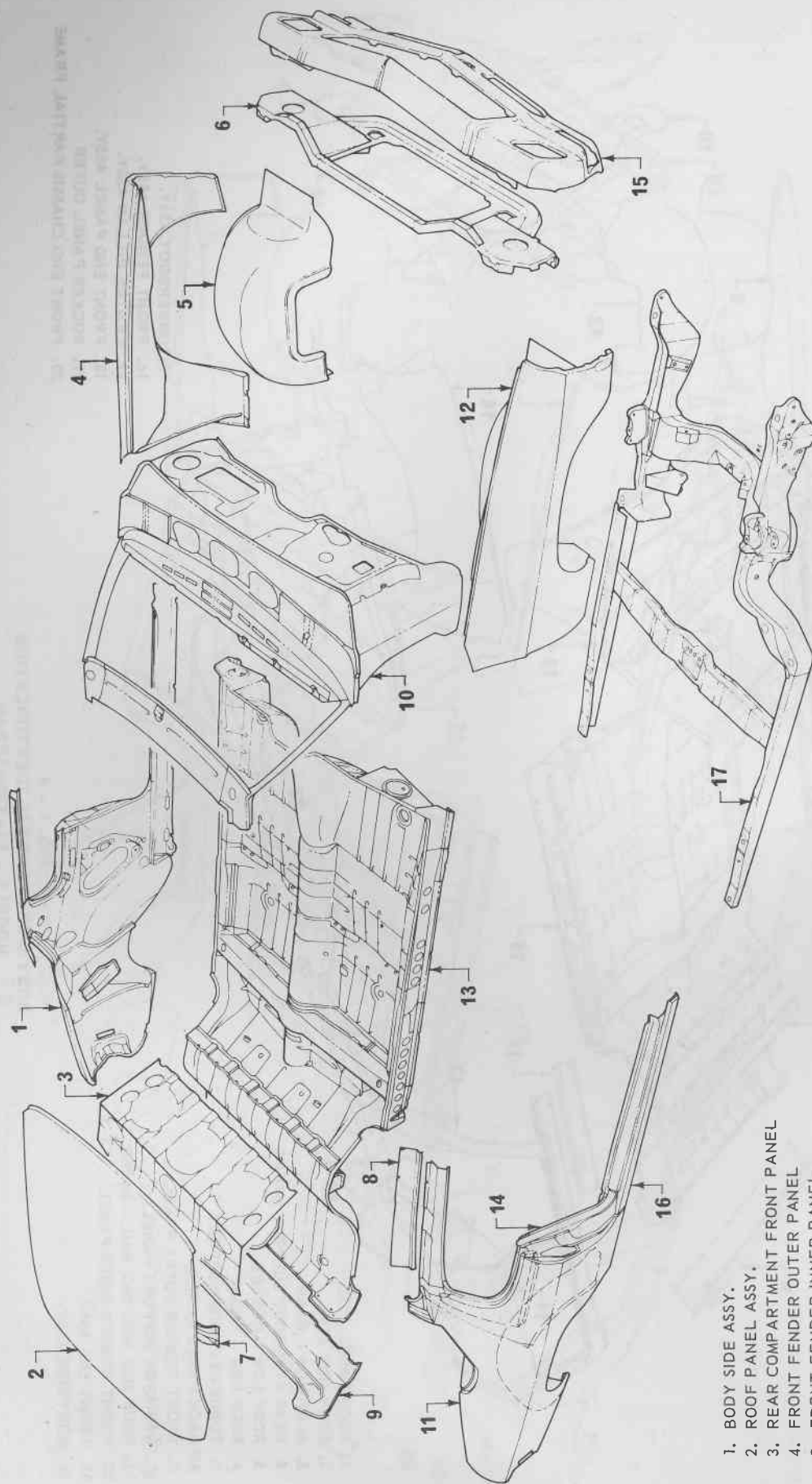
FIG. 1 - 3
 BODY & SHEET METAL IDENTIFICATION
 MODELS - SEDAN



15. UNDERBODY ASSY.
16. FRONT FENDER ASSY.
17. CENTRE PILLAR ASSY.
18. FRONT END PANEL ASSY.
19. ROCKER PANEL OUTER
20. FRONT END CHASSIS PARTIAL FRAME

1. ROOF PANEL ASSY.
2. BODY SIDE ASSY.
3. ROOF BOW - REAR
4. REAR APERTURE SUPPORT UPPER
5. ROOF BOW - CENTRE
6. ROOF BOW - FRONT
7. TONNEAU FLOOR SUPPORT
8. BACK PANEL LOWER
9. FRONT FENDER OUTER PANEL
10. RADIATOR SUPPORT PANEL.
11. ROOF SIDE SUPPORT RAIL - INNER
12. FRONT FENDER INNER PANEL
13. FRONT END ASSY.
14. BODY SIDE ASSY.

FIG. 1 - 4
BODY & SHEET METAL IDENTIFICATION
MODELS - STATION SEDAN



1. BODY SIDE ASSY.
2. ROOF PANEL ASSY.
3. REAR COMPARTMENT FRONT PANEL
4. FRONT FENDER OUTER PANEL
5. FRONT FENDER INNER PANEL
6. RADIATOR SUPPORT PANEL
7. ROOF BOW - FRONT
8. ROOF SIDE SUPPORT RAIL - INNER
9. BACK PANEL LOWER ASSY.
10. FRONT END ASSY.
11. BODY SIDE ASSY.
12. FRONT FENDER ASSY.
13. UNDERBODY ASSY.
14. BODY LOCK PILLAR
15. FRONT END PANEL ASSY.
16. ROCKER PANEL OUTER
17. FRONT END CHASSIS PARTIAL FRAME

FIG. 1 - 5
BODY & SHEET METAL IDENTIFICATION
MODELS - COUPE

Body Shell Parts Replacement

When replacing or repairing a part or sub-assembly, care must be taken to ensure that correct alignment and strength of unit as a whole is maintained. In some instances, major damage to the body or frame can be more effectively and economically repaired by replacing a part or sub-assembly with a new one, rather than repairing the damaged part.

Spot welding is used extensively for joining panels together, particularly around the flanged edges of dash panel, windshield and back window opening, along edges of rocker panels and lower edge of rear body.

When replacing a section that is normally attached by this method and spot-welding equipment is not available, or the location of parts prevents the use of same, the part or assembly should be attached by the welding method known as "plug welding", which is as follows:

1. Remove the damaged part by cutting through the spot welds between the panels with a thin-edged chisel or by drilling the spot welds.
2. Drill 3/16 in. diameter holes in either the new or mating part to correspond with the spacing and location of the original spot welds. (Parts to be drilled determined by accessibility for following operations).
3. Clamp new part in position and gas or arc weld the two parts together through each hole, finally dressing off high spots on exposed surfaces.

When replacing parts such as roof panels, rear quarter or rocker panels; where a butt or overlap weld is required, the join of the panels must be formed below the normal contour. This allows for solder loading over the join and eliminates the possible reduction of sheet steel thickness following the necessary buffing or grinding of a normal welding operation.

IMPORTANT: Following replacement or repair of body components, it is essential that proper rust proofing techniques be observed.

Components should be rust-proofed whenever body repair operations destroy or damage the original rust-proofing.

Body Sealing

After replacing body panels or assemblies, all underbody panel joints should be sealed with an underbody sealer. Where it is necessary to paint over sealer, a neutral plastic sealer should be used. Considerable attention is given to the sealing of body shells during the process of manufacture to ensure against the entry of water and dust. For various reasons, however, leaks may ultimately develop in service. Accidental damage for example may disturb the sealing of a joint. If new body panels or members are required, various manufacturing holes must be plugged, and spot welded flanges coated with sealer.

Water Leak Diagnosis and Rectification

As with all welded-type body shells, it is extremely difficult to identify all the potential points where leaks may occur. The following information is therefore given as a general guide to the procedure to be followed for diagnosing and rectifying leak locations.

Diagnosis of leaks is complicated by the fact that the appearance of water at one point can be caused by seepage through any one or more of many possible locations. As an example of this indirect entry, the cause of wet front floor coverings may be due to water entering past the door weatherstrip, through the door inner panel, between the windshield and its glazing compound or through any one of the joints in the floor panel, ventilator or dash panels, therefore; point or points of water or dust entry must be established before effective resealing can be carried out.

Where automatic type washing equipment is available, the vehicle should be subjected to a water spray for a minimum period of four minutes. At the end of this period, the underbody should be sprayed with a high pressure hose to simulate wet weather conditions.

Alternatively, the water test should be carried out, using a medium pressure hose, giving a good delivery of water in the form of a spray to the upper parts of the body; i.e., windshield, doors, drain channels, etc. A high pressure hose should be used on the underbody in the manner previously described.

Having established the exact location of a leak, the area must be thoroughly cleaned and dried out. The affected area should, if necessary, be de-oxidized; primed and then sealed.

Body Cements, Sealers and Adhesive Compounds

The following list of body cements, sealers and adhesive compounds, which are the same as those used during manufacture of the vehicle, are available from NASCO.

Part No.:

7425227 Mastic sealer for back window of Statesman models and rear quarter windows of Station Sedans (1 lb. 3 oz. cylindrical carton). To be used with applicator available from G.M. Skinner Pty. Ltd., 42 Pine Street, Chippendale, N.S.W.

7425228 Plastic adhesive for cementing door inner panel seals and shock absorber mounting hole seals (1 pint tin).

7425230 P.V.C. adhesive for cementing P.V.C. headlining into position (1 pint tin).

7425231 Prestik grey sealing strip for sealing around tail lights.

7425233 Neutral plastic sealer for sealing body joins where it is necessary to paint over sealer (1 pint tin).

7425330 Prestik black sealing strip for steering column opening cover (five strips per unit).

7425347 Elastite caulking compound for sealing sheet metal panel joins (2½ lb. tin).

7425360 Underbody sealer for sealing underbody panel joins and holes (2½ lb. tin).

2823265 Windshield Silicone Caulking Package.

2823266 Rear window Silicone Caulking Package.

The successful application of sealing and adhesive compounds depends upon absolute cleanliness of the areas to be treated, therefore; it is important to remove all dust, water, grease or rust before applying the compounds. Inflammable adhesives and solvents should be used in well ventilated areas.

Adhesive compounds are normally applied to both surfaces to be joined, allowed to dry until tacky, then pressed firmly together over the whole area to provide maximum adhesion. If a coating of adhesive is allowed to dry, it can usually be re-activated by wiping with a diluent recommended for the particular material being used.

For removing any excess sealer from paintwork or backlight glasses, etc., use a cloth moistened with white spirit.

NOTE: Petrol or paint thinner must not be used.

BODY LUBRICATION

The moving mechanical parts of the body which have metal to metal contact are lubricated at assembly.

Operating conditions, whether normal or otherwise, determine the effective life of of the lubricant and for this reason, lubrication in service is important.

Equally important is the type of lubricant to be used and for your guidance we list locations and recommended lubricants.

WARNING: *Careless or excessive application of body lubricants can result in staining of paint finish or damage to clothing. Use lubricants sparingly and remove accidental application from paint finish immediately.*

Parts Readily Accessible

Where practicable, use Zinc Oxide Grease; otherwise use light oil.

Engine Hood Catch.

Engine Hood Lock.

Engine Hood Hinge.

Door Hinge and Hold-open Clips.

Instrument Compartment Lid Hinge.

Rear Compartment Lid Hinge.

Rear Compartment Lid Lock Mechanism.

Rear Seat Hinges (Station Sedan).

Floor Filler Panel Hinge (Station Sedan).

End Gate Hinge Assembly.

End Gate Locking Mechanism.

Lower End Gate Limit Arm.

Plenum Chamber Control.

USE NASCO SOLIDOIL

Door Lock Striker Bolt.

Door Lock Fork Bolt.

Instrument Compartment Lid Lock Tongue.

Parts Readily Accessible

Apply Powdered Graphite through Key Aperture (do not oil).

Ignition Lock Cylinder.

Rear Compartment Lid Lock Cylinder.

Door Lock Cylinder.

Instrument Panel Compartment Lock Cylinder.

End Gate Lock Cylinder.

End Gate Lock and Switch Assembly.

Parts Concealed Necessitating Disassembly

Where practicable, use Zinc Oxide Grease, otherwise use light oil.

Door Window Regulator.

Door Window Glass and Cams.

Door Lock Mechanism.

Door Lock Remote Control.

Rear Quarter Window Guides and Cams.

Front Seat Adjuster.

End Gate Regulator.

End Gate Remote Control.

MAINTENANCE - APPEARANCE

To preserve the original paint finish of the vehicle, it is essential that it is kept clean by frequent washing. Washing not only removes dirt and road grime that

settles on the vehicle, but also dilutes acids which accompany such grime, in particular; salt from air or sea spray encountered in coastal areas which often become trapped in crevices.

Tree sap, road tar, excretion from insects and industrial fall out often contain harmful chemicals and other foreign matter that may permanently damage the paint finish of the car. These should be removed without delay, using an effective removal agent.

1. Regular Washing

If the vehicle is in continuous use, it should be washed at least once a week with either cold or warm water (preferably running water), using clean chamois leathers, sponges or rags free from dirt or grit likely to scratch the paint finish. It is good practice to first hose the vehicle to remove as much of the grit and grime as possible before swabbing the surface. When hosing, it is important to hose under the front fenders, rear wheelhouses and along any underbody ledges to remove any dirt or mud which can collect in these areas and can, if neglected, cause corrosion.

Do not wash the vehicle under bright sunlight when high temperatures are being experienced, as this will result in a streaky, watermarked finish.

Vinyl Roof Cover

The cover should be washed frequently with neutral soap suds, lukewarm water and a soft bristle brush. Rinse cover with fresh water until all traces of soap are removed.

Tar

Tar stains can be removed with Holt's Tar Remover or Shellite, providing the stain is not allowed to remain on the paint finish for an indefinite period.

Petrol

Wash off with water immediately.

CAUTION: Prolonged contact of petrol with paint finish will result in permanent staining of the paint.

Insect Spots

Insect spots on the paint finished parts of the vehicle can be easily washed off by using a solution containing two quarts of water in which half a pound of baking soda (Bicarbonate of Soda) has been dissolved. Flush the washed parts with clean water.

After washing and drying, park the vehicle in shaded area.

2. Polishing

Over a period of time, foreign matter (road scum) may build up on the paint surface to the detriment of its overall appearance. In these circumstances the use of Delco General Cleaner and Polish is recommended.

Do not attempt to polish without first washing the vehicle to remove existing loose grit or surface dirt.

Delco General Cleaner and Polish should be applied with a damp, clean, soft cloth, stockingnet or cheese cloth, allowed to dry and the final clean up obtained by polishing with a dry, soft cloth.

Inspection

Regular inspection of the vehicle should be made for scratch marks, cracks or damaged areas, all of which could develop rust and thus affect paint finish. Any deep scratches, cracks or breakdown in the finish should be repaired without delay.

Care should be taken to ensure that any rusting is counteracted immediately, otherwise rust "creep" will extend beyond the damaged area. This applies particularly in sub-tropical areas or coastal districts, where the moist or salt laden atmosphere accelerates rusting if it is allowed to develop through neglect. The paint finish of the vehicle gives a very high degree of protection against the weather, but it should be realised that wear and deterioration occur when the car is exposed to elements for prolonged periods.

The vehicle therefore should be garaged whenever possible.

Protection of Bright Metal Parts

The destructive forces of salt air and corrosive atmosphere can be eliminated if bright metal parts are thoroughly washed regularly in the same manner as the paint finish of the vehicle.

NOTE: Never scour or use abrasive polishes.

CARE AND CLEANING OF INTERIOR TRIM

Loose dust and dirt particles that accumulate on the surface of interior trims should be removed every few weeks; more often with constant hard driving. This can be readily achieved, using a vacuum cleaner or soft brush.

IMPORTANT: Before attempting to remove spots and stains from trim material, it is necessary to determine as accurately as possible:

1. The nature and age of the stain.
2. The effect of the stain removal agent upon the colour, structure and general appearance of the trim material.

It is essential that stains be removed from trim material as soon as possible after they have been made. If they are allowed to remain on the material indefinitely, they can become oxidised and removal is difficult, if not impossible.

Description and Cleaning Methods

In general, vinyl material is used for seating, headlining and auxiliary trimming. The grades of vinyl used vary with the particular wear required of them. The seat insert on some production options are manufactured with synthetic (nylon, rayon) fibres.

CAUTION: When cleaning such fabrics, do not use a whisk brush since damage to the fine threads may result.

Care of P.V.C. material is a relatively simple but important matter. The surface should be wiped over occasionally with a dry cloth and if dirt should accumulate, the following cleaning instructions should be used:

1. Using lukewarm water and neutral soap, work up a soap lather on a piece of cheese cloth and apply to the material.

A soft bristled brush may be used to advantage to remove stubborn stains or dirt embedded in the grain of the material.

2. The operation should be repeated, using only a damp cloth and no soap.

3. The trim should then be wiped dry with a soft cloth

The above cleaning instructions also apply to the rubber floor covering.

IMPORTANT: Where stubborn stains on trim material fail to respond to the above methods, a light application of Delco General Upholstery Cleaner or white spirits with a soft cloth will invariably prove satisfactory.

NOTE: Do not use cleaner or white spirits excessively.

Cleaning Carpets

Thoroughly brush or vacuum the carpet. In many instances the carpet may require no further cleaning. If the carpet is excessively soiled, remove carpet from vehicle, thoroughly vacuum it to remove loose dirt; then, with a foaming type carpet cleaner, clean approximately one square foot at a time. After each area is cleaned, remove as much of the cleaner as possible with a vacuum cleaner. After cleaning the carpet, use an air hose to "fluff" the carpet pile, then dry the carpet. After the carpet has completely dried, use an air hose to again fluff the pile.

If oil or grease spots are still present on the carpet, they may be removed by using a volatile cleaner.

Removing Specific Stains from Trim

For certain specific stains, special treatment is necessary. It must be expected, particularly where water treatment is specified, that discolouration and material disturbance may occur.

Battery Acids

Apply ordinary household ammonia with a brush or cloth to the affected area, saturating it thoroughly. Permit the ammonia to remain on the spot for approximately one minute to neutralize the acid, then rinse the spot by rubbing with a clean cloth saturated with cold water.

However, no type of treatment will repair damage to material resulting from the action of the acids, particularly after the spot has dried.

Blood

Rub the stain with a clean cloth saturated with cold water until the stain is removed. Only use clean portions of cloth for rubbing the stain.

This treatment should remove all of the stain. If it does not, apply a small amount of household ammonia to the stain with a cloth or brush. After a lapse of about one minute, continue to rub the stain with a clean cloth dipped in clean water.

If the stain remains after the use of water and ammonia, a thick paste of corn starch and cold water may be applied. Allow the paste to remain until it has dried and absorbed the stain, then pick off the dry starch. Brush the surface to remove starch particles that remain. For bad stains, several applications of starch paste may be necessary.

CAUTION: Do not use hot water or soap and water on blood stains as this will set the stain, thereby making its removal practically impossible.

Sweets and Chocolate

Sweet stains resulting from cream and fruit-filled chocolates can be removed more easily by rubbing with a cloth soaked in lukewarm soapsuds (mild neutral soap) and scraping, while wet, with a dull knife. This treatment is followed with a rinsing by rubbing the spot with a cloth dipped in cold water.

Stains resulting from chocolate can be removed by rubbing the stain with a cloth wet with lukewarm water. After the spot is dry, rub it lightly with a cloth dipped in a volatile cleaner.

Sweets

Sweet stains other than sweets containing chocolate can be removed by rubbing the affected area with a cloth soaked with very hot water. If the stain is not completely removed, rub the area lightly (after drying) with a cloth wet with a volatile cleaner.

Chewing Gum

Harden the gum with an ice cube and scrape off with a dull knife. If gum cannot be removed completely by this method, moisten it with a volatile cleaner and work it from the material with a dull knife, while gum is still moist.

Fruit Stains, Liquor, Wine

Practically all fruit stains can be removed by treatment with very hot water. Wet the stain well by applying hot water to the spot with a clean cloth. Scrape all excess pulp, if present, off the material with a dull knife; then rub vigorously with a cloth with very hot water. If the stain is very old or deep, it may be necessary to pour very hot water directly on the spot, following this treatment with scraping and rubbing. Direct application of hot water to material is not recommended for general use, since discolouration usually results.

If the above treatments do not remove the stain, allow material to dry thoroughly; then rub lightly with a clean cloth dipped in a volatile cleaner. This is the only further treatment recommended.

Soap and water are not recommended, since they will probably set the stain and cause a permanent discolouration.

Grease and Oil

As much grease as possible should be removed by scraping with a dull knife.

Grease and oil stains may be removed by rubbing lightly with a clean cloth saturated in a volatile cleaner. Be sure all motions are towards the centre of the stained area, to decrease the possibility of spreading the stain.

Ice Cream

The same procedure is recommended for the removal of ice cream stains as that used for removing fruit stains. If the stain is persistent, rub the spot with a cloth wet with warm soap suds (mild neutral soap). Use a clean cloth to apply a cold water rinse to the area. When dry, rub area lightly with a cloth wet with a volatile cleaner.

Nausea

Sponge with a clean cloth dipped in clear cold water. After most of the stain has been removed in this way, wash lightly with soap (mild neutral), using a clean cloth and lukewarm water, then rub with another clean cloth dipped in cold water. If any of the stain remains after this treatment, gently rub with a clean cloth moistened with a volatile cleaner.

Shoe Polish and Dressings

For shoe dressings containing starch or dextrine or some water soluble vehicle, sponge with a clean cloth dipped in clear cold water.

Paste or wax-type shoe polishes may require using a volatile cleaner. Rub the stain gently with a cloth wet with a volatile cleaner until the polish is removed. Use a clean portion of the cloth for each rubbing operation, and rub the stained area from outside to centre.

Tar

Moisten the spot slightly with a volatile cleaner, then remove as much of the tar as possible with a dull knife. Follow this operation by rubbing the spot lightly with a cloth wet with the cleaner until the stain is removed.

Urine

Sponge the stain with a clean cloth saturated with lukewarm soapsuds (mild neutral soap), then rinse well by rubbing the stain with a clean cloth dipped in cold water. Saturate a clean cloth with a solution of one part household ammonia and five parts water. Apply the cloth to the stain and allow the solution to remain on the affected area for one minute; then rinse by rubbing with a clean cloth and cold water.

Lipstick

The compositions of different brands of lipstick vary, making the stains very difficult to remove. In some instances, a volatile cleaner may remove the stain. If some stain remains after repeated application of volatile cleaner, further treatment is not recommended as this may damage the material.

LOCK CYLINDERS, KEYS AND LOCKS

All 'HQ' models are equipped with new, five biting depths lock cylinders. Two, non interchangeable keyways are used in these lock cylinders. A square headed key operates the primary keyway of ignition, doors and on station sedans; endgate lock cylinders. An oval headed key operates the secondary keyway of instrument panel compartment door and rear compartment lid lock cylinders. Key code numbers of the ignition and instrument panel compartment lid locks are stamped on the side of the lock cylinders.

Key identification code numbers are stamped on the KNOCK-OUT section of the keys.

New "fork type" door locks with "bolt type" lock strikers incorporating a free wheel action are also featured on these models.

SAFETY GLASS

With the exception of the optional laminated safety glass windshield, all glass surrounding the vehicles occupants is armour plate safety glass. This type of glass, when struck by a stone thrown up by a passing vehicle, can become opaque in a spider web pattern. Toughened safety glass windshields incorporate an additional safety feature in the form of a modified zone. This zone covers an oval area approximately 17.5" wide by 7" deep, and is located at eye level directly in front of the driver. Should the glass shatter, larger particles of glass in the modified zone allow adequate vision, although vision surrounding the zone can be completely obscure due to smaller particles of glass in the remainder of the windshield.

All safety glass in the vehicle is insulated against shock, either by adhesive caulking compound, rubber retainers or rubber and felt glass run channels.

NOTE It is possible for the safety glass to be struck by an object thrown up by a passing vehicle, without the owner being aware and without the immediate shattering of the glass. The actual shattering of the glass can occur some time after the impact and is due to the effect of the impact onto the stresses of the glass, together with variations in temperature. Our experience is that safety glass shattering from causes other than being struck by an object is remote.

MINOR GLASS SCRATCHES and ABRASION REMOVAL

Description

Minor glass scratches and abrasions can be effectively removed or substantially reduced by utilizing a felt padded low speed rotary polisher in accordance with the following procedure and precautions.

Removal of minor scratches and abrasions from glass is an operation that requires reasonable care. When removing minor windshield glass scratches and abrasions, double vision must be prevented from developing in areas that will distort the drivers vision. Glass distortion is most likely to result when attempting to remove deep scratches.

Avoid using excessive pressure when using the rotary polisher as this may over-heat the glass. The polisher must never be held in any one spot for longer than 40 seconds at a time. If the glass becomes hot to touch, allow the glass to air cool prior to proceeding with the operation. Avoid cooling with cold water as this may crack the glass.

The following equipment is recommended for minor glass and abrasion removal:

- (a) A low speed (600–1300 R.P.M.) rotary polisher.
- (b) A wool felt rotary type polishing pad approximately 3" in diameter and 2" thick.
- (c) Powdered Ceric Oxide mixed with water as an abrasive compound.
- (d) A wide mouth container to hold the compound.

Glass Scratch and Abrasion Removal Procedure

1. Place a sufficient amount of powdered Ceric Oxide in the bottom of the container and mix in sufficient water to obtain a creamy consistency.

NOTE: If the compound is too thick, it cakes on the felt pad too quickly and if too thin, the operation time is extended.

2. Place a protective cover over paintwork adjacent to area where the operation is to be carried out.
3. Agitate the compound occasionally to maintain a creamy consistency. Powdered Ceric Oxide is insoluble in water and tends to separate.
4. Draw a circle around the scratches or abrasions on the inside of the glass, using a marking crayon. Also draw lines directly behind scratches or abrasions to assist in locating the rotary polisher, as illustrated in Fig. 1-6.

5. Dip the pad into the mixture at 15 second intervals to ensure that the pad and glass are always wet during the operation. A dry pad causes excessive heat to develop.

NOTE: Never fully submerge or allow pad to remain in compound as this may loosen the bond between pad and metal plate.

6. Using a moderate but steady pressure, hold the pad flat against the scratched area of the glass and using a feathering out motion to prevent the possibility of a "bulls-eye", remove the scratch or abrasion, as illustrated in Fig. 1-6
7. Clean off compound and remove protective covering.

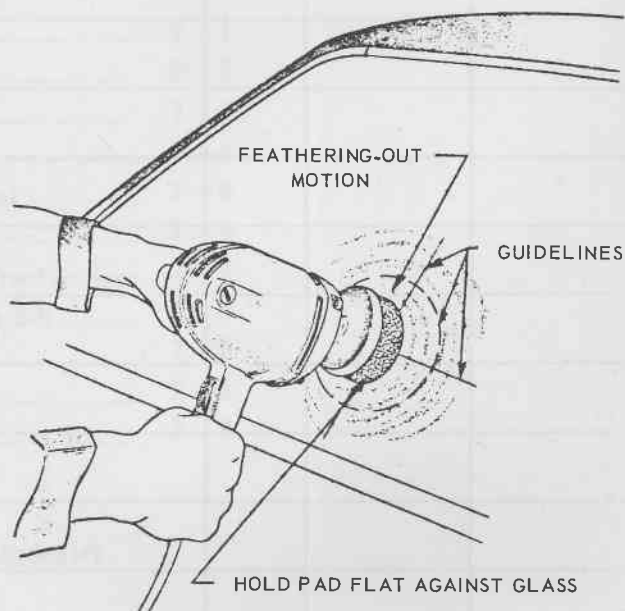


FIG. 1-6
MIRROR GLASS SCRATCH REMOVAL

SECTION 2

UNDERBODY

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UNDERBODY ALIGNMENT

Correct underbody alignment is essential, as any misalignment of the underbody can affect suspension, fitment of doors, engine hood, rear compartment lid or end gate.

The underbody should therefore be aligned to within 1/16 in. of dimensions specified in Figs. 2-1, 2-2 and 2-3. These dimensions should be accurately checked with a tram gauge consisting of a parallel bar or rod, fitted with two adjustable trammels, capable of gauging all underbody dimensions specified.

In preparing an underbody alignment check, place vehicle on a level surface with the weight of the body supported at wheel locations.

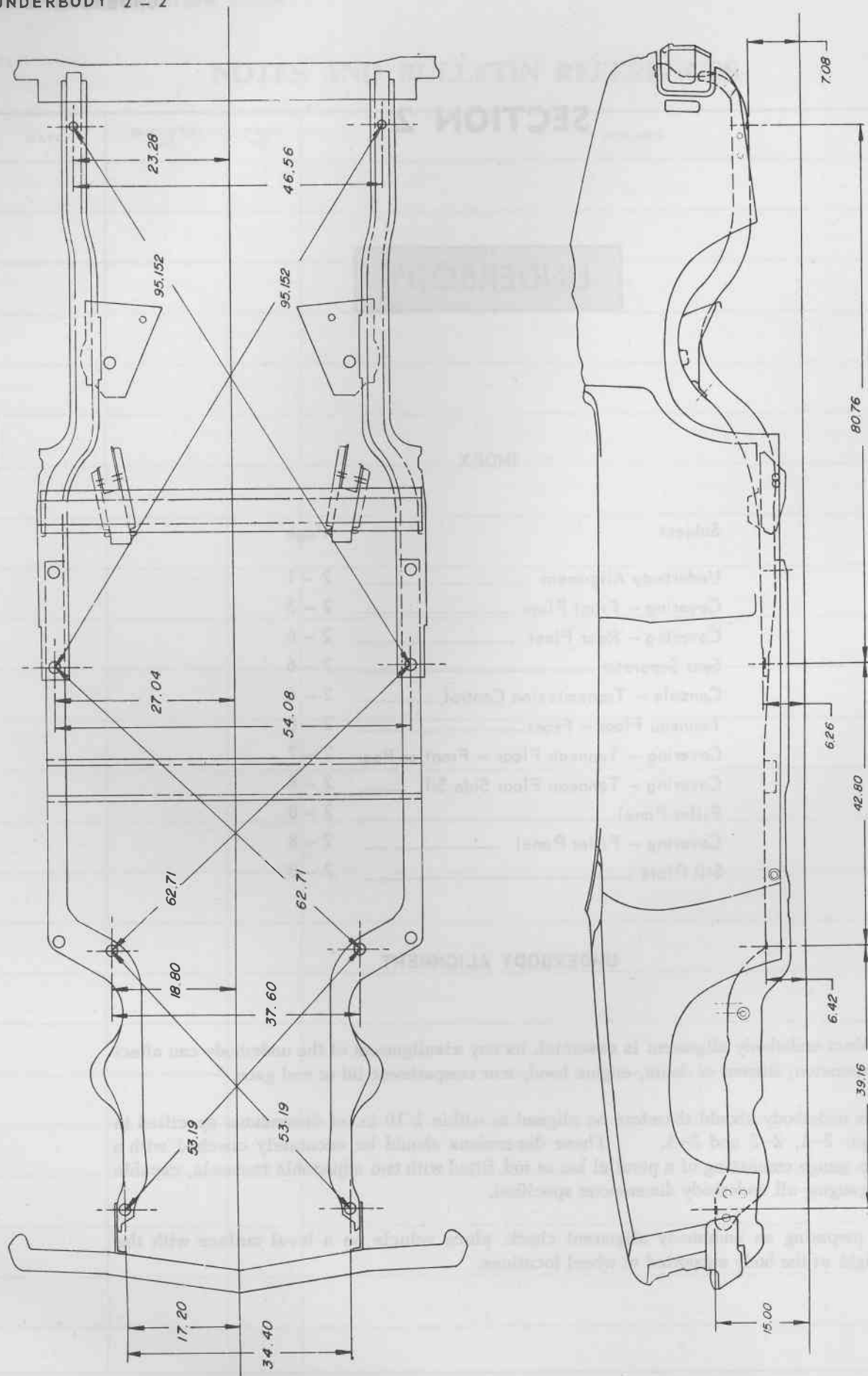


FIG. 2 - 1
UNDERBODY DIMENSIONS
MODELS - COUPE & SEDAN EXCEPT STATESMAN

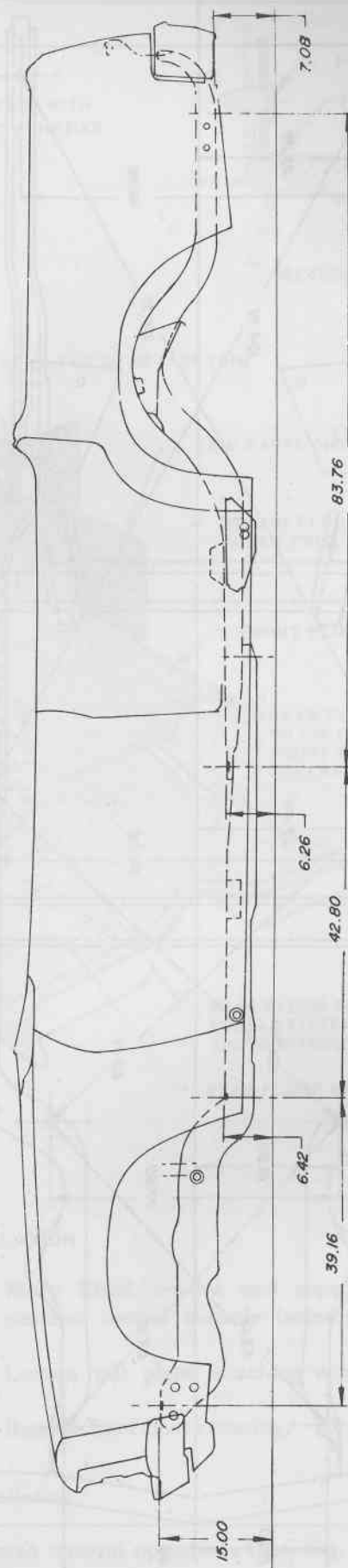
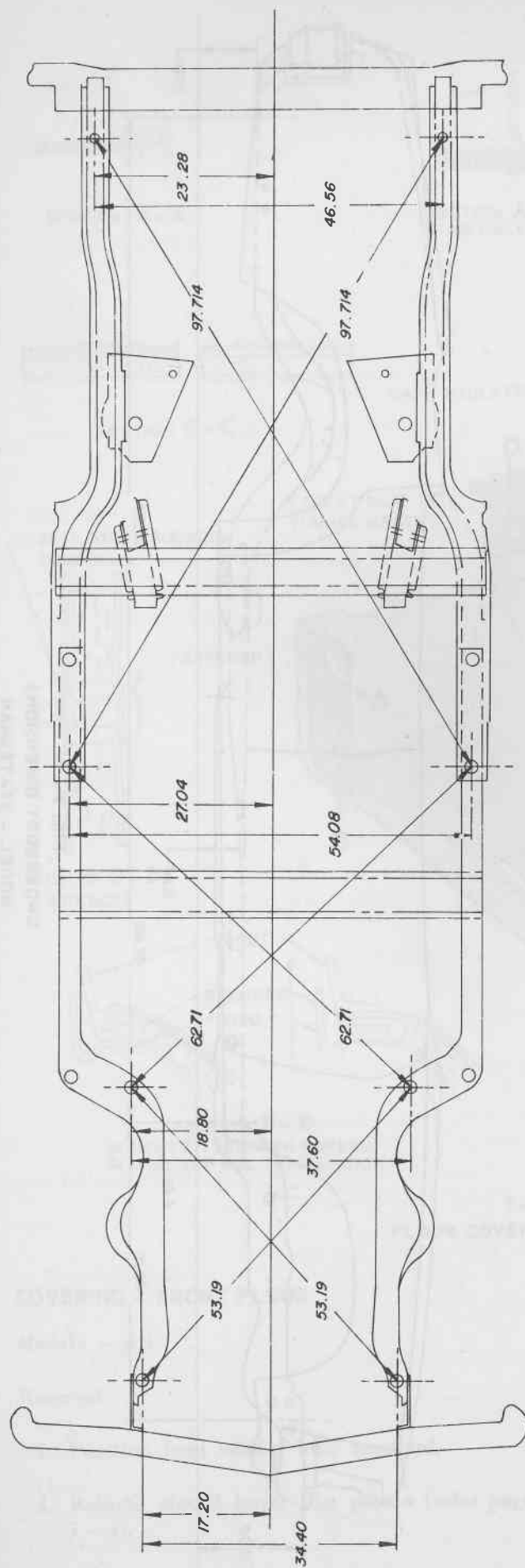


FIG. 2 - 2
UNDERBODY DIMENSIONS
MODEL - STATION SEDAN

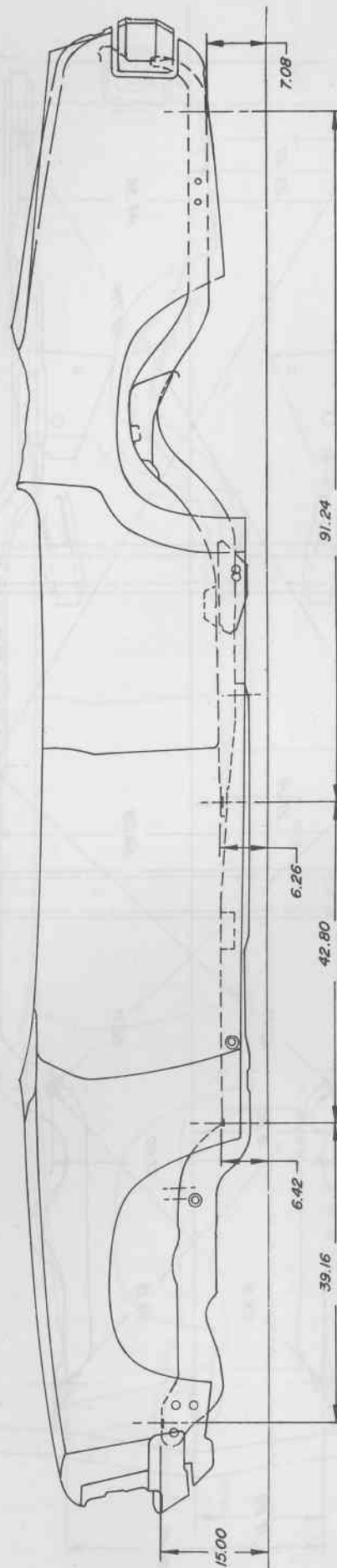
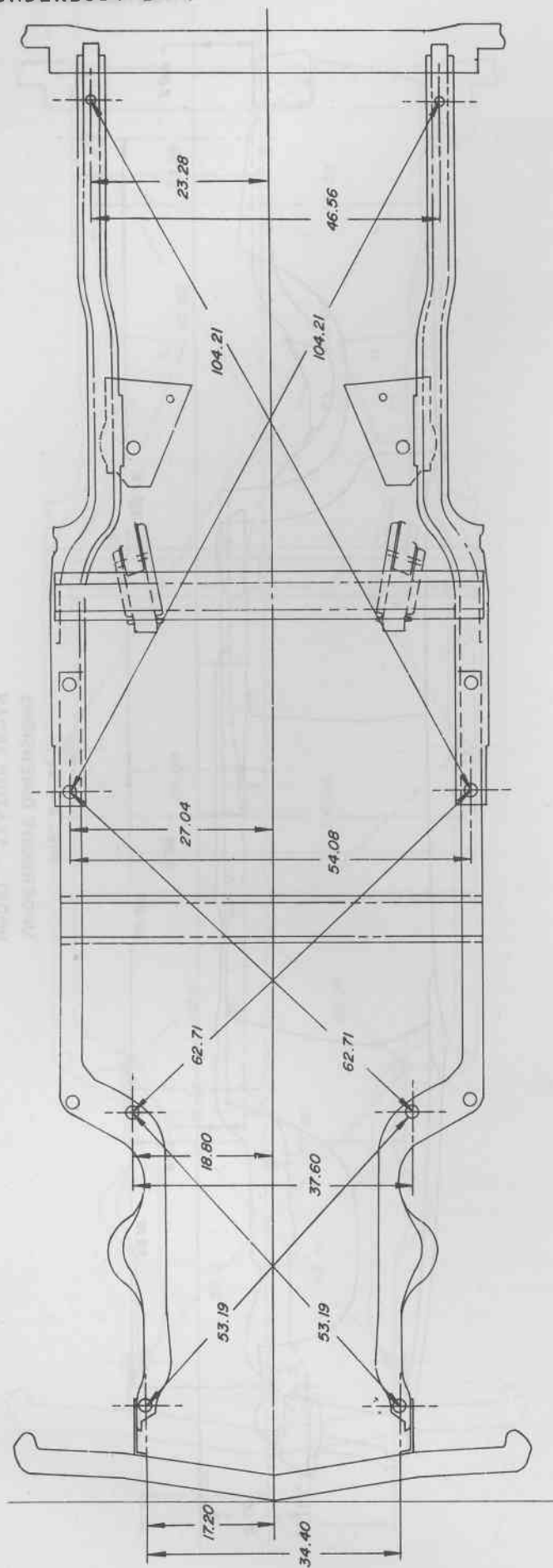


FIG. 2 - 3
UNDERBODY DIMENSIONS
MODEL - STATESMAN

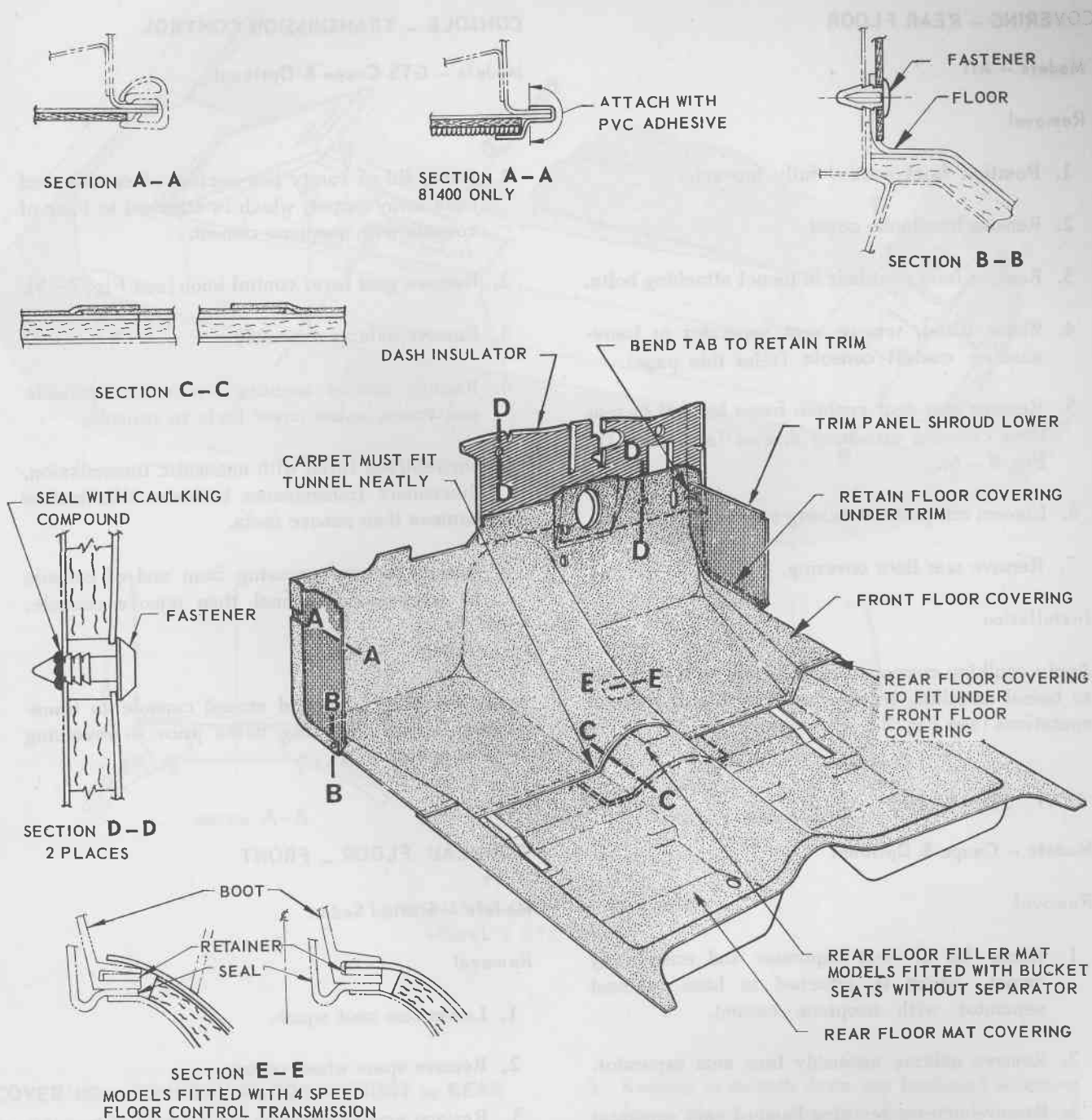


FIG. 2 - 4
FLOOR COVERING INSTALLATION

COVERING - FRONT FLOOR

Models - All

Removal

1. Position front seat(s) fully rearward.
2. Remove shroud lower trim panels (refer page 3 - 1).

3. Where fitted, remove seat separator or transmission control console (refer page 2 - 6).
4. Loosen sill plate attaching screws.
5. Remove front floor covering.

Installation

Reverse removal operations (see Fig. 2 - 4).

COVERING - REAR FLOOR

Models - All

Removal

1. Position front seat(s) fully forward.
2. Remove handbrake cover.
3. Remove front seat belt to tunnel attaching bolts.
4. Where fitted, remove seat separator or transmission control console (refer this page).
5. Remove rear seat cushion frame bracket to rear floor crossbar attaching screws (see View D, Fig. 8 - 6).
6. Loosen sill plate attaching screws.
7. Remove rear floor covering.

Installation

Apply caulking compound around front seat belt bolt to tunnel attaching holes prior to reversing removal operations (see Fig. 2 - 4).

SEAT SEPARATOR

Models - Coupe & Optional

Removal

1. Raise lid of seat separator and ease away carpet, which is attached to base of seat separator with neoprene cement.
2. Remove ashtray assembly from seat separator.
3. Remove screws securing base of seat separator to transmission tunnel then remove separator.

Installation

Apply caulking compound around seat separator to transmission tunnel attaching holes prior to reversing removal operations.

CONSOLE - TRANSMISSION CONTROL

Models - GTS Coupe & Optional

Removal

1. Raise lid of vanity box section of console and ease away carpet, which is attached to base of console with neoprene cement.
2. Remove gear lever control knob (see Fig. 2 - 5).
3. Remove ashtray assembly.
4. Remove screws securing rear end of console and transmission cover facia to console.
5. On vehicles fitted with automatic transmission, disconnect transmission indicator illuminative harness then remove facia.
6. Remove screws securing front end of console to transmission tunnel then remove console.

Installation

Apply caulking compound around console to transmission tunnel attaching holes prior to reversing removal operations.

TONNEAU FLOOR - FRONT

Models - Station Sedan

Removal

1. Lower rear seat squab.
2. Remove spare wheel cover.
3. Remove screws securing outer edges of tonneau floor to underbody assembly.
4. Lift out front tonneau floor.

Installation

Reverse removal operations.

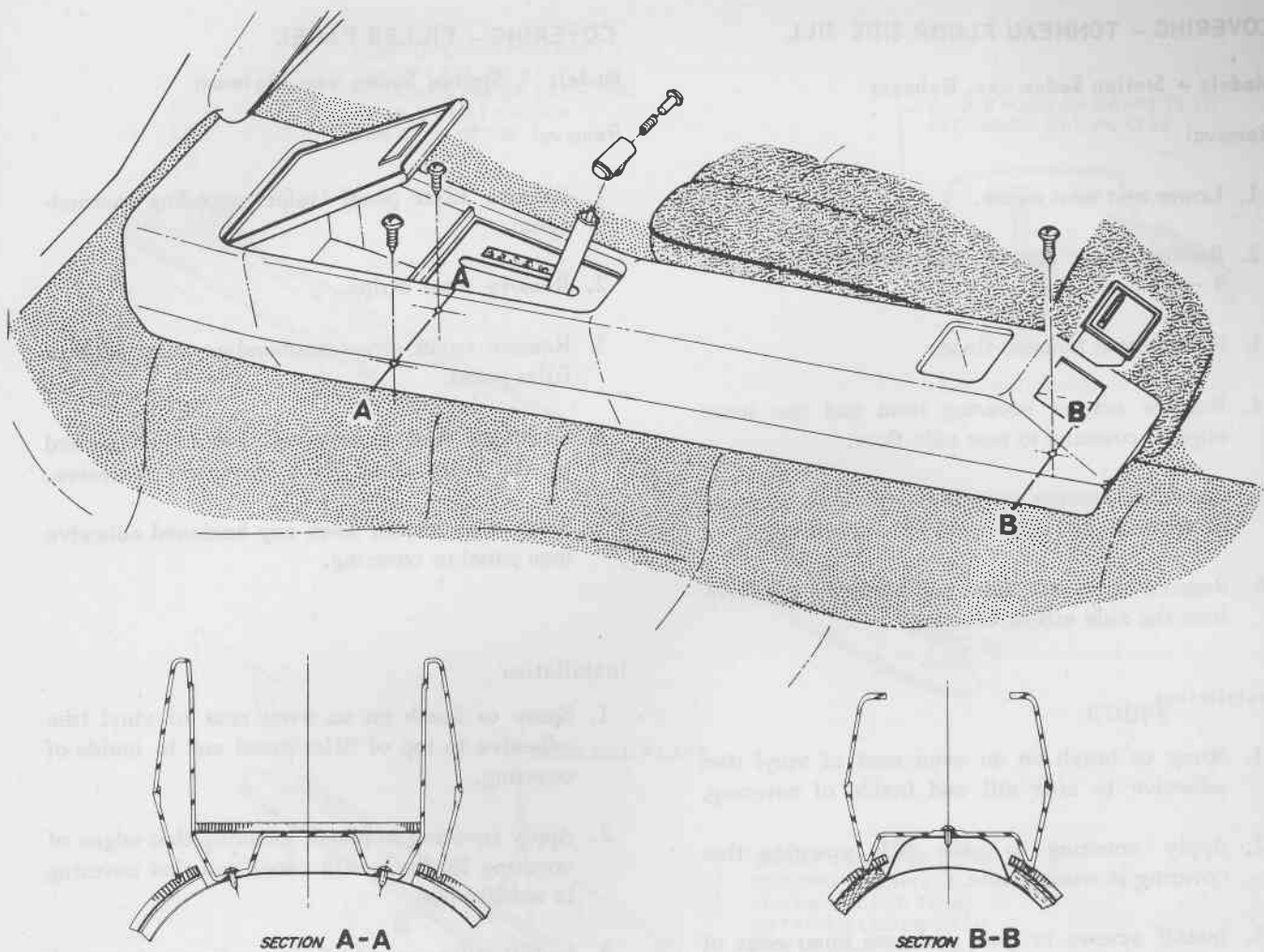


FIG. 2 - 5
TRANSMISSION CONTROL CONSOLE
MODEL - GTS COUPE

COVERING _ TONNEAU FLOOR - FRONT or REAR

Models - Station Sedan exc. Belmont

Removal

1. Remove tonneau floor (refer preceding instructions).
2. Remove wear strips.
3. Remove staples securing edges of covering to base of tonneau floor.
4. Carefully remove covering, the edges of which are attached to the tonneau floor with vinyl trim adhesive.

5. Remove or smooth down any hardened adhesive from edges of tonneau floor and covering.

Installation

1. Apply an even coat of vinyl trim adhesive to edges of tonneau floor and to inside, outer edges of covering.
2. Apply covering to tonneau floor, ensuring that covering is wrinkle free.
3. Staple edges of covering to base of tonneau floor.
4. Install tonneau floor.

COVERING - TONNEAU FLOOR SIDE SILL

Models - Station Sedan exc. Belmont

Removal

1. Lower rear seat squab.
2. Remove rear quarter trim panels (see page 4 - 1).
3. Remove rear tonneau floor.
4. Remove screws securing front and rear inner edge of covering to rear side floor.
5. Carefully remove covering, which is attached to the side sill with vinyl trim adhesive.
6. Remove or smooth down any hardened adhesive from the side sill or covering.

Installation

1. Spray or brush on an even coat of vinyl trim adhesive to side sill and inside of covering.
2. Apply covering to side sill, ensuring that covering is wrinkle free.
3. Install screws to front and rear inner edge of covering.
4. Install rear tonneau floor and rear quarter trim panels (refer page 4 - 1).

FILLER PANEL

Models - Station Sedan

Removal

1. Lower rear seat squab.
2. Remove screws securing filler panel hinge to rear floor riser panel.
3. Remove filler panel

Installation

Reverse removal operations.

COVERING - FILLER PANEL

Models - Station Sedan exc. Belmont

Removal

1. Remove filler panel (refer preceding instructions).
2. Remove wear strips.
3. Remove cover strips surrounding outer edge of filler panel.
4. Carefully remove covering, which is attached to the filler panel with vinyl trim adhesive.
5. Remove or smooth down any hardened adhesive from panel or covering.

Installation

1. Spray or brush on an even coat of vinyl trim adhesive to top of filler panel and to inside of covering.
2. Apply covering to panel, ensuring that edges of covering fit flush with panel and that covering is wrinkle free.
3. Install filler panel (refer preceding instructions).

SILL PLATE

Models - All

Removal

1. Remove screws securing park brake cover to brake lever base.
2. Remove screws securing sill plate to rocker panel (see Fig. 2 - 6) then remove sill plate.

NOTE: The removal of the front sill plate on sedans and station sedans necessitates the removal of the foremost rear sill plate to rocker panel attaching screw (see Section A-A, Fig. 2 - 6).

Installation

Reverse removal operations.

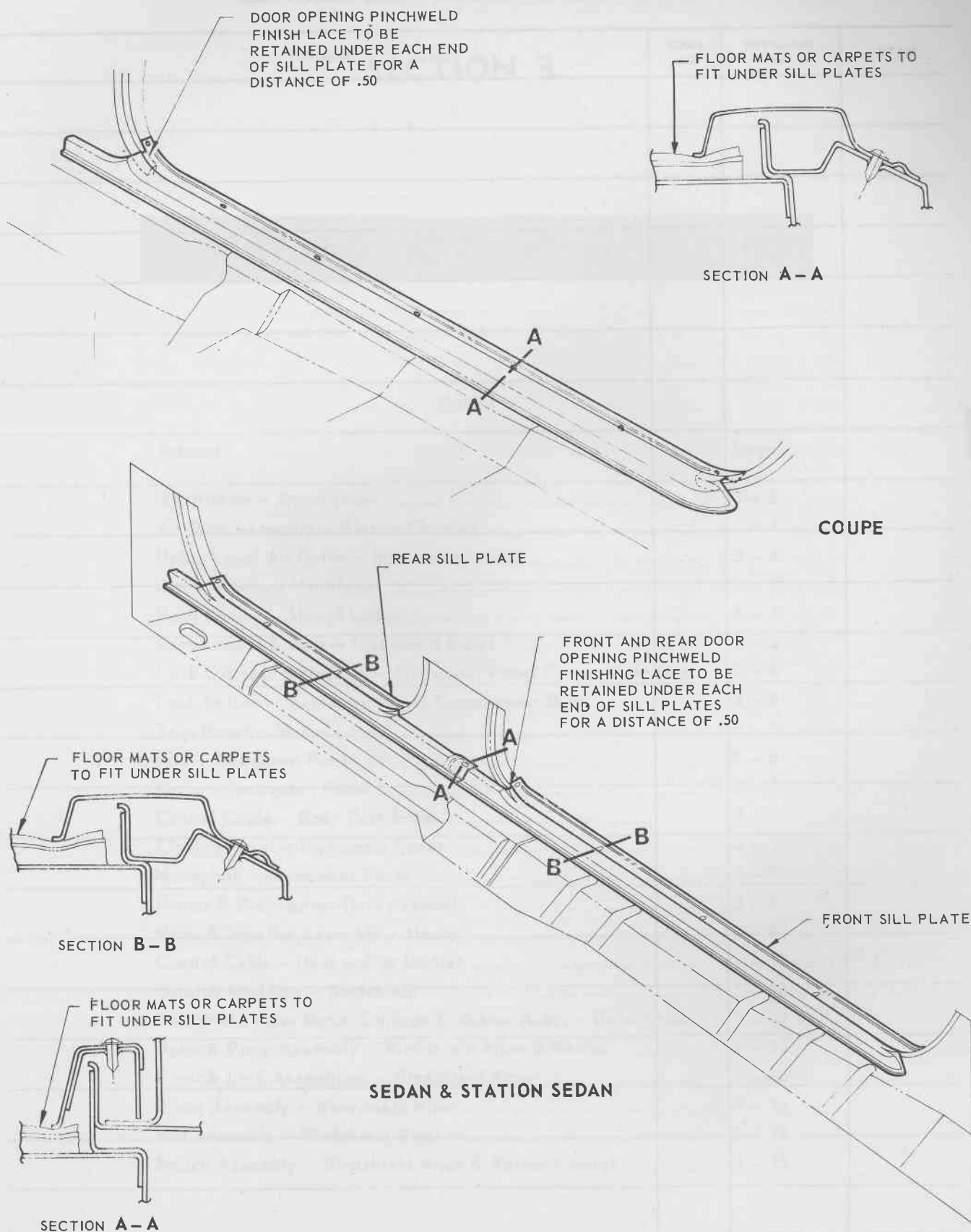


FIG. 2 - 6
SILL PLATE INSTALLATION

SECTION 3

FRONT END - VENTILATION - HEATING

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BODY "FLOW THROUGH" VENTILATION

Description

The new ventilation and heating system on all 'HQ' models allows fresh or mixed hot or cold air to "flow through" the body.

Fresh air entering the shroud ventilation grille forward of the windshield, passes into a full width plenum chamber, from where it is directed to the upper and lower air outlets located both on and under both ends of the instrument panel. Finger grip controls marked "VENT" located on each side of the instrument cluster, operate flaps within the R & LH air ducts, directing air down on the floor, through these ducts. With the "VENT" control pulled fully out, maximum lower level air flow is attained, with reduced air flow through the upper level outlets. With the "VENT" control fully closed, lower level air flow is shut off and maximum upper level air flow is possible. Serrated wheels on either end of the rotatable vanes are used to direct or shut off air flow from the upper air outlets. Balanced air flow through upper and lower level air outlets can be achieved by intermediate setting of the lower vent controls and by opening the upper level air outlet directional vanes.

A heat/demist control incorporating an air induction fan switch is attached to the RH side of the instrument carrier. Fresh air entering the plenum chamber is drawn into the heater (air mix unit) via a branch from the LH air duct. This forced air has alternative routing, either through or by passing the heater core. Control is achieved by selecting the control knob setting on the RH side of the instrument carrier, proportioning the hot and cold air mixture, thus achieving the desired discharge temperature. This air flow can be directed to foot, seat level or demist outlets in varying proportions or completely shut off, dependent on control knob setting. Bowden cables attached to the control knobs operate air deflector doors within the heater unit.

With all windows in the vehicle closed, air flowing through the body, exhausts through pressure relief valves fitted to the rear body lock pillars (see Fig. 3 - 1). This partial pressurization of the body reduces wind noise and dust entry into the vehicle. An optional air conditioning unit available on all 'HQ' models except GTS 350 manual, incorporates a heater core. A four speed air induction fan attached to the air conditioner induces hot, cold or mixed air to be ducted into the body via air outlets located centrally and on both ends of the instrument panel, through the windshield demist ducts or onto the floor, dependent on control knob setting.

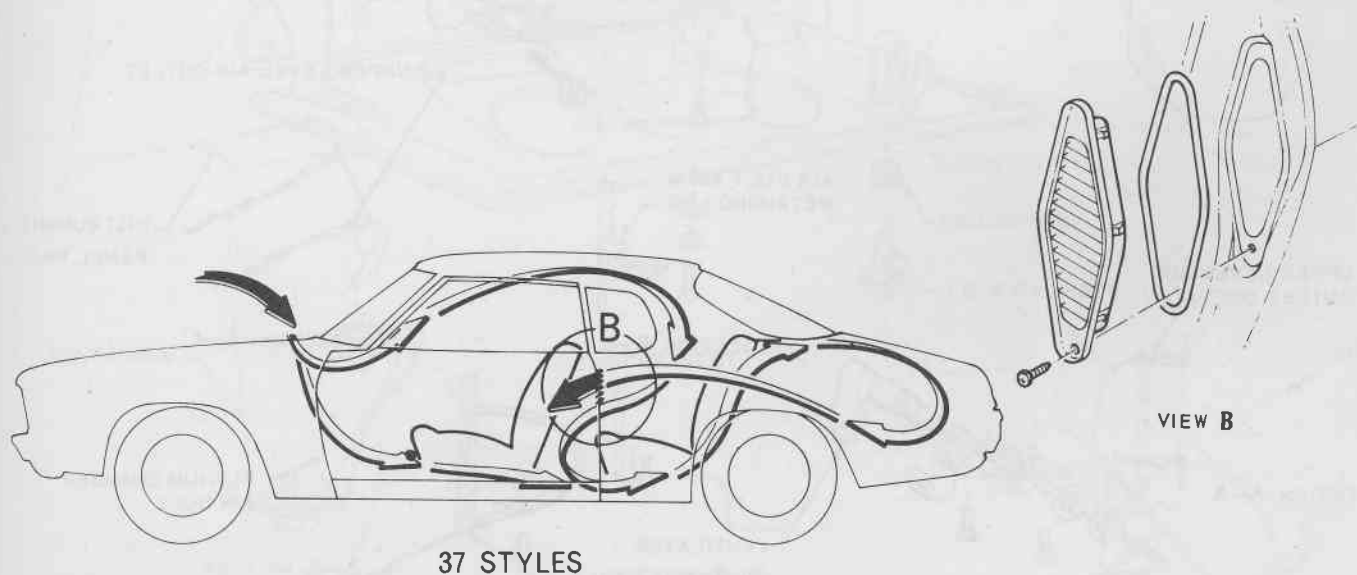
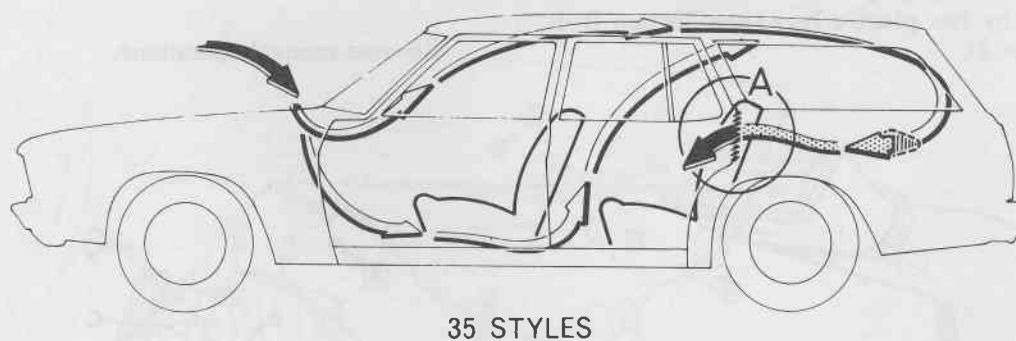
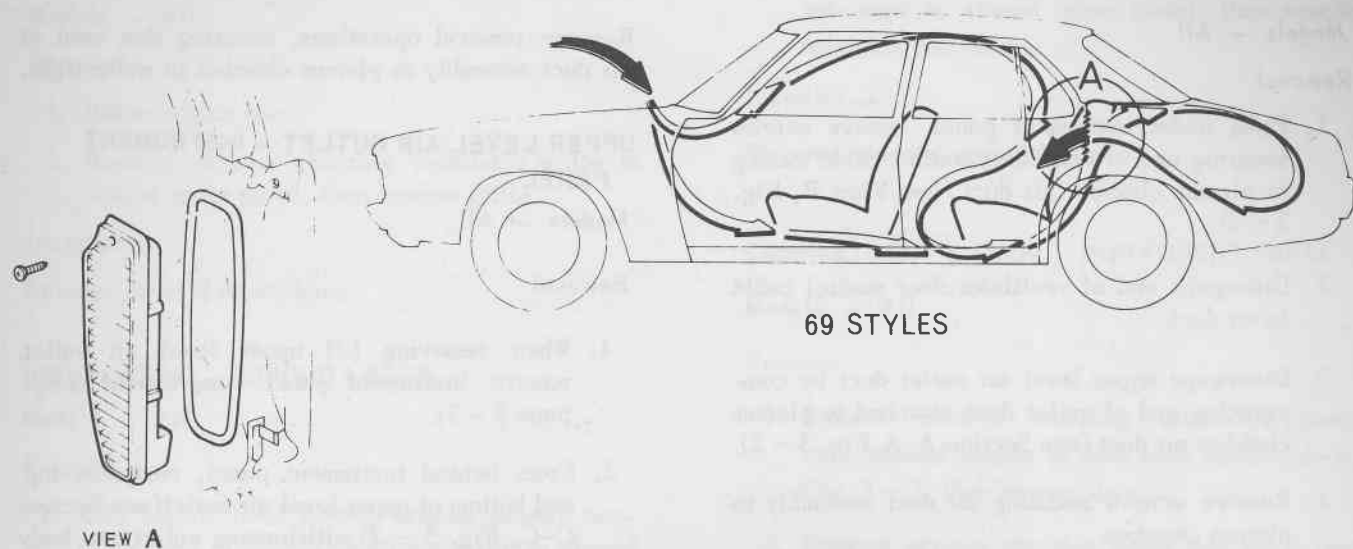


FIG. 3 - 1
BODY "FLOW THROUGH" VENTILATION

AIR DUCT ASSEMBLY - PLENUM CHAMBER

Models - All

Removal

1. From under instrument panel, remove screws securing end of ventilator control cable casing to plenum chamber air duct (see View B, Fig. 3 - 2).
2. Disengage end of ventilator door control cable to air duct.
3. Disengage upper level air outlet duct by compressing end of outlet duct attached to plenum chamber air duct (see Section A-A, Fig. 3 - 2).
4. Remove screws securing air duct assembly to plenum chamber.
5. Ease inner side of assembly down slightly before disengaging outer side, which is retained by two plastic lugs (see Section B-B, Fig. 3 - 2).

Installation

Reverse removal operations, ensuring that seal of air duct assembly to plenum chamber is water tight.

UPPER LEVEL AIR OUTLET - INSTRUMENT PANEL

Models - All

Removal

1. When removing LH upper level air outlet, remove instrument panel compartment (refer page 3 - 5).
2. From behind instrument panel, compress top and bottom of upper level air outlet (see Section C-C, Fig. 3 - 2) withdrawing outlet into body from instrument panel.

Installation

Reverse removal operations.

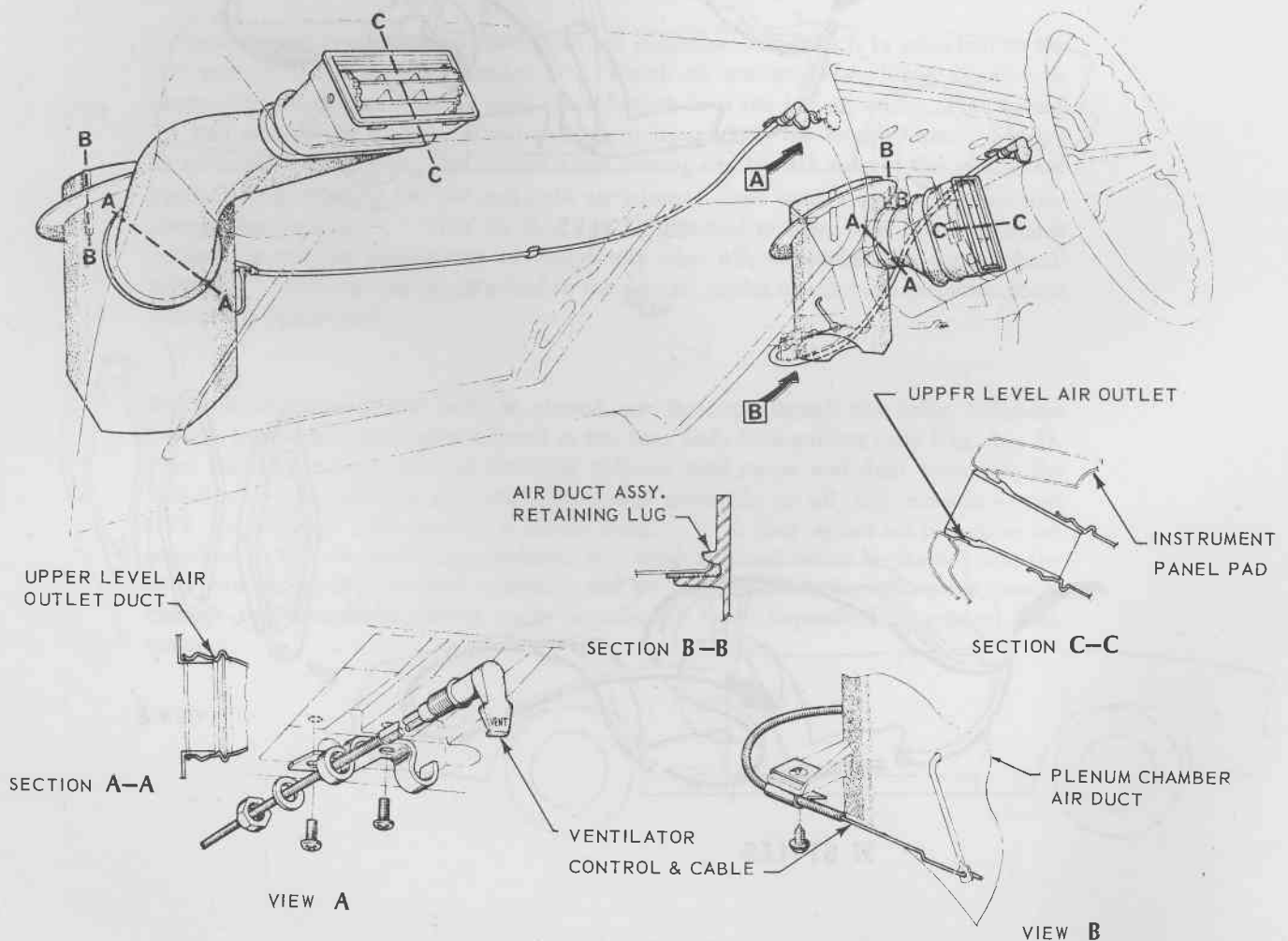


FIG 3 - 2
VENTILATOR DUCTING & CONTROLS

GRILLE - SHROUD VENTILATOR

Models - All

Removal

1. Raise engine hood.
2. Remove screws securing ventilator grille to shroud upper panel, then remove grille.

Installation

Reverse removal operations.

HOOD LACING - SHROUD LEDGE

Models - All

Removal

1. With engine hood raised, remove screws securing front of shroud ventilator grille to shroud upper panel.

2. Remove screws securing R & LH hood lacing retainers to shroud upper panel, then remove retainers and lacing.

Installation

Reverse removal operations.

COMPARTMENT & DOOR - INSTRUMENT PANEL

Models - All

Removal

1. Remove screws securing instrument panel compartment hinges to door (see Section A-A, Fig. 3 - 3) then remove door.
2. Remove screws securing upper and lower rear edges of compartment to instrument panel.

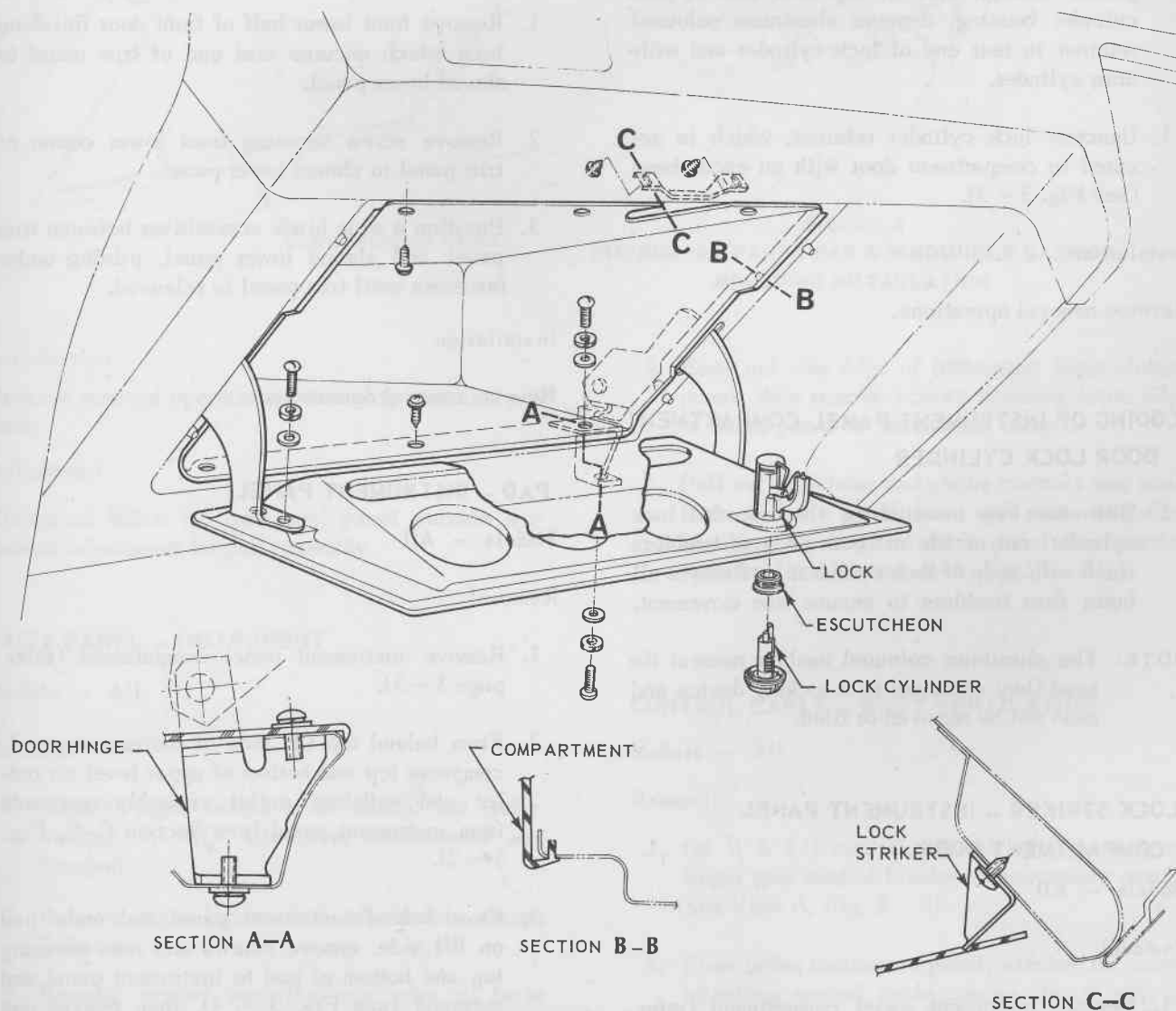


FIG. 3 - 3

INSTRUMENT PANEL COMPARTMENT & DOOR INSTALLATION

3. Remove compartment rearwards, into body

Installation

Reverse removal operations.

LOCK CYLINDER & HOUSING - INSTRUMENT PANEL COMPARTMENT DOOR

Models - All

Removal

1. With compartment door open, position lock cylinder in locked position (key head vertical).
2. With key removed and using a paper clip inserted through slot in top rear end of lock cylinder housing, depress aluminium coloured retainer in rear end of lock cylinder and withdraw cylinder.
3. Unscrew lock cylinder retainer, which is secured to compartment door with an escutcheon (see Fig. 3 - 3).

Installation

Reverse removal operations.

CODING OF INSTRUMENT PANEL COMPARTMENT DOOR LOCK CYLINDER

1. With the key inserted in the uncoded lock cylinder, cut or file off both ends of tumblers flush with body of lock cylinder. Remove all burrs from tumblers to ensure free movement.

NOTE: The aluminium coloured tumbler nearest the head (key entrance) is a locking device and must not be removed or filed.

LOCK STRIKER - INSTRUMENT PANEL COMPARTMENT DOOR

Models - All

Removal

1. Remove instrument panel compartment (refer page 3 - 5).

2. Remove screws securing lock striker to instrument panel (see Section C-C, Fig. 3 - 3) and remove striker.

Installation

Reverse removal operations.

Adjustment

Elongated holes in lock striker provide forward and rearward adjustment.

TRIM PANEL - SHROUD LOWER

Models - All

Removal

1. Remove front lower half of front door finishing lace which secures rear end of trim panel to shroud lower panel.
2. Remove screw securing front lower corner of trim panel to shroud lower panel.
3. Position a wide blade screwdriver between trim panel and shroud lower panel, prising under fasteners until trim panel is released.

Installation

Reverse removal operations.

PAD - INSTRUMENT PANEL

Models - All

Removal

1. Remove instrument panel compartment (refer page 3 - 5).
2. From behind top LH side of instrument panel, compress top and bottom of upper level air outlet and withdraw outlet assembly rearwards from instrument panel (see Section C-C, Fig. 3 - 2).
3. From behind instrument panel and under pad on RH side, remove screws and nuts securing top and bottom of pad to instrument panel and surround (see Fig. 3 - 4), then remove pad assembly.

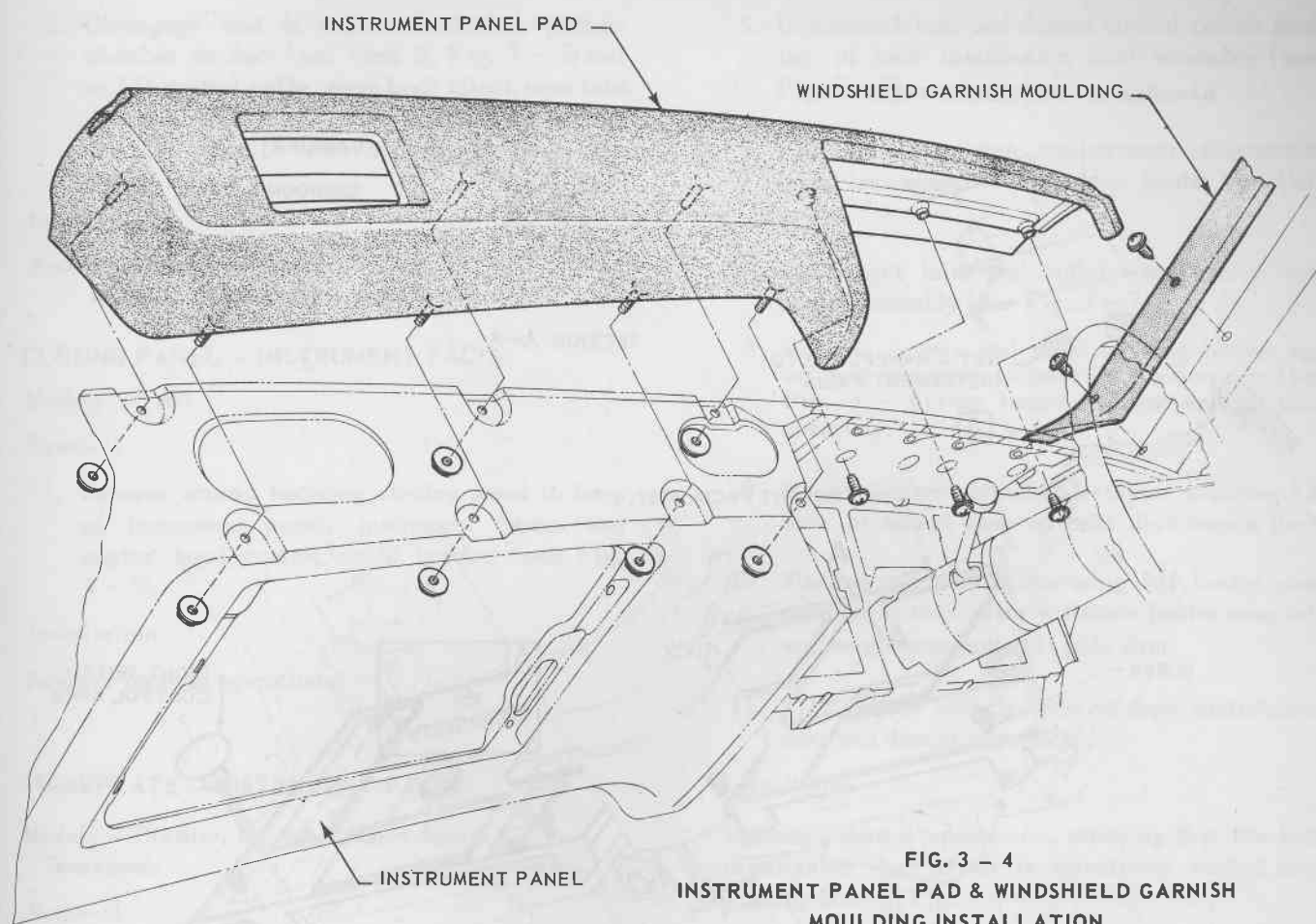


FIG. 3 - 4
INSTRUMENT PANEL PAD & WINDSHIELD GARNISH
MOULDING INSTALLATION

Installation

Reverse removal operations, attaching centre of pad first.

Adjustment

Elongated holes in instrument panel provide horizontal adjustment for pad assembly.

4. Ease out rear edge of instrument facia closing panel, then remove screws securing lower edge of facia panel to instrument carrier.
5. Pull out ventilator and choke controls and ease base of facia panel down and rearwards, disengaging top edge of facia panel from carrier surround (see Section A-A, Fig. 3 - 5).

FACIA PANEL - INSTRUMENT

Models - All

Removal

1. Remove light switch knob control rod (refer Volume 5, 'HQ' Electrical Instruments and Gauges).
2. Remove cigar lighter from all models except Belmont.
3. Remove screws securing rear edge of facia closing panel to instrument carrier (see Fig. 3 - 5).

CONTROL CABLE - BODY VENTILATION

Models - All

Removal

1. On R & LH control, remove screws securing finger grip control bracket to instrument carrier (see View A, Fig. 3 - 2).
2. From under instrument panel, slacken off screw attaching control cable casing clip to side of plenum chamber air duct (see View B, Fig. 3 - 2).

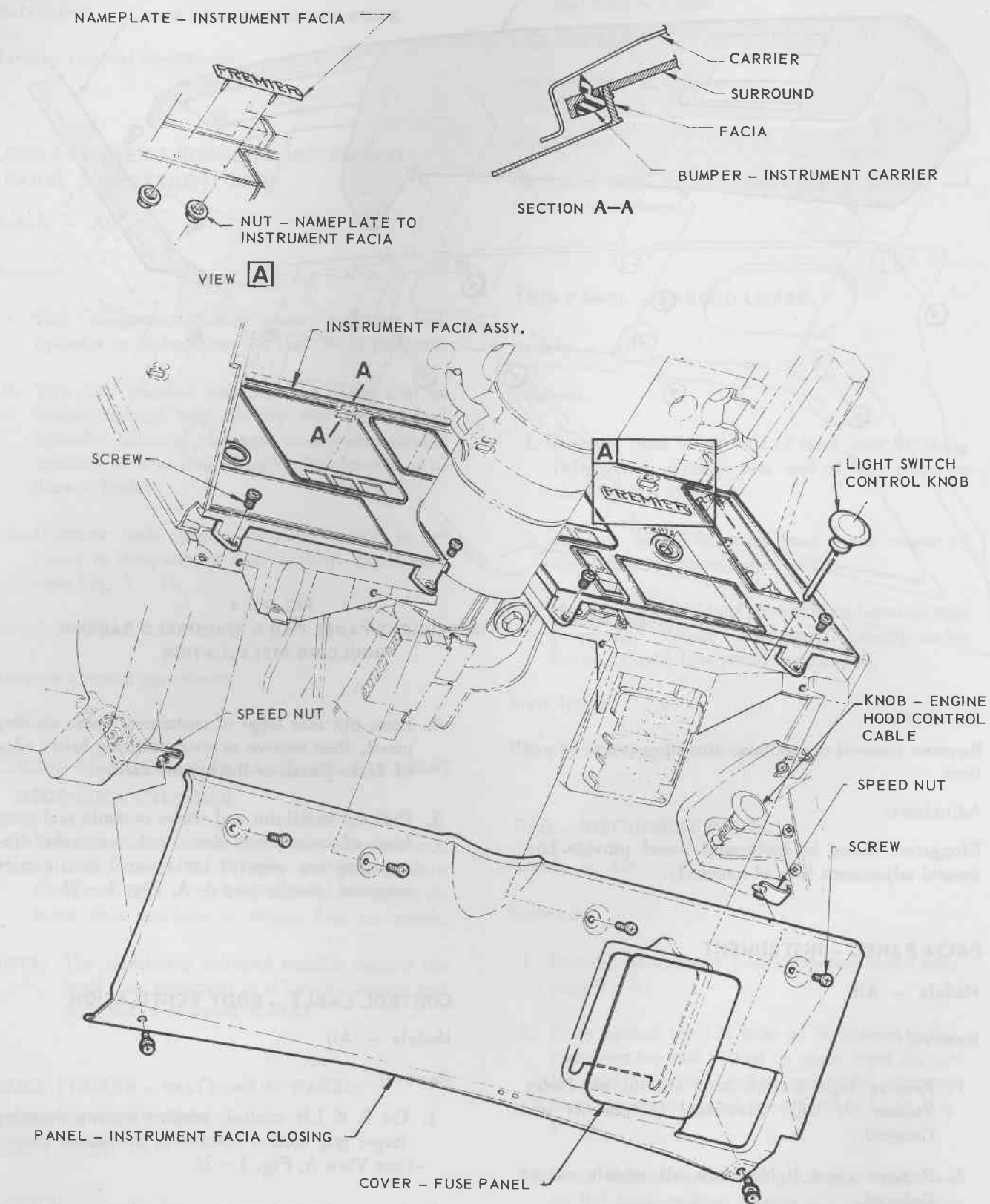


FIG. 3 - 5
INSTRUMENT FACIA & CLOSING PANEL INSTALLATION

3. Disengage end of cable attached to plenum chamber air duct (see View B, Fig. 3 - 2) and on LH control cable, ease back clinch over tabs securing centre of cable to base of plenum chamber prior to removing control cable assembly.

Installation

Reverse removal operations.

CLOSING PANEL - INSTRUMENT FACIA

Models - All

Removal

1. Remove screws securing closing panel to base of instrument panel, instrument carrier and engine hood control cable bracket (see Fig. 3 - 5).

Installation

Reverse removal operations.

NAMEPLATE - INSTRUMENT FACIA

Models - Premier, Monaro, Luxury Sports & Statesman

Removal

1. Remove instrument facia panel (refer Page 3 - 7).
2. Remove nuts securing nameplate to instrument facia then remove nameplate.

Installation

Reverse removal operations.

HEATER & DISTRIBUTION DUCT ASSEMBLY

Models - All

Removal

1. Remove instrument panel compartment (refer page 3 - 5).
2. Remove LH air outlet from plenum chamber (refer page 3 - 4).
3. Remove instrument facia closing panel (see Fig. 3 - 5).
4. From under instrument panel, remove screws and butterfly nuts securing demist and heat distribution duct to instrument panel and heat distribution duct assembly (see View A, Fig. 3 - 6).

5. Disconnect heat and demist control cables from top of heat distribution duct assembly (see Fig. 3 - 7).

6. From inside engine compartment, disconnect body harness connector from heater impellor motor.

7. Disconnect inlet and outlet water hoses from heater assembly (see Fig. 3 - 7).

8. Remove screws and nuts securing blower and air duct assembly to heat distribution duct (see Fig. 3 - 6) then remove blower and air duct assembly.

9. Remove screw attached retainer securing LH side of heater core to heat distribution duct.

10. Slacken off screws securing RH heater core retainer to duct, then withdraw heater core into engine compartment, LH side first.

11. From inside vehicle, remove heat distribution duct and demist assemblies.

Installation

Reverse removal operations, ensuring that the heat distribution duct cover is effectively sealed (see sealing note on Fig. 3 - 6).

NOTE: Run engine at a fast idling speed for five minutes to ensure full circulation of water through heater core before topping up radiator.

MOTOR & IMPELLOR ASSEMBLY - HEATER

Models - All

Removal

1. With engine hood raised, disconnect air induction motor to heater resistor lead (see Fig. 3 - 6).
2. Remove screws securing earth strap and air induction motor and impellor assembly to air duct cover and withdraw assembly.

Installation

Reverse removal operations.

NOTE: For inspection, overhaul and testing of air induction fan motor, refer VOL. 5, 'HQ' Electrical Instruments and Gauges.

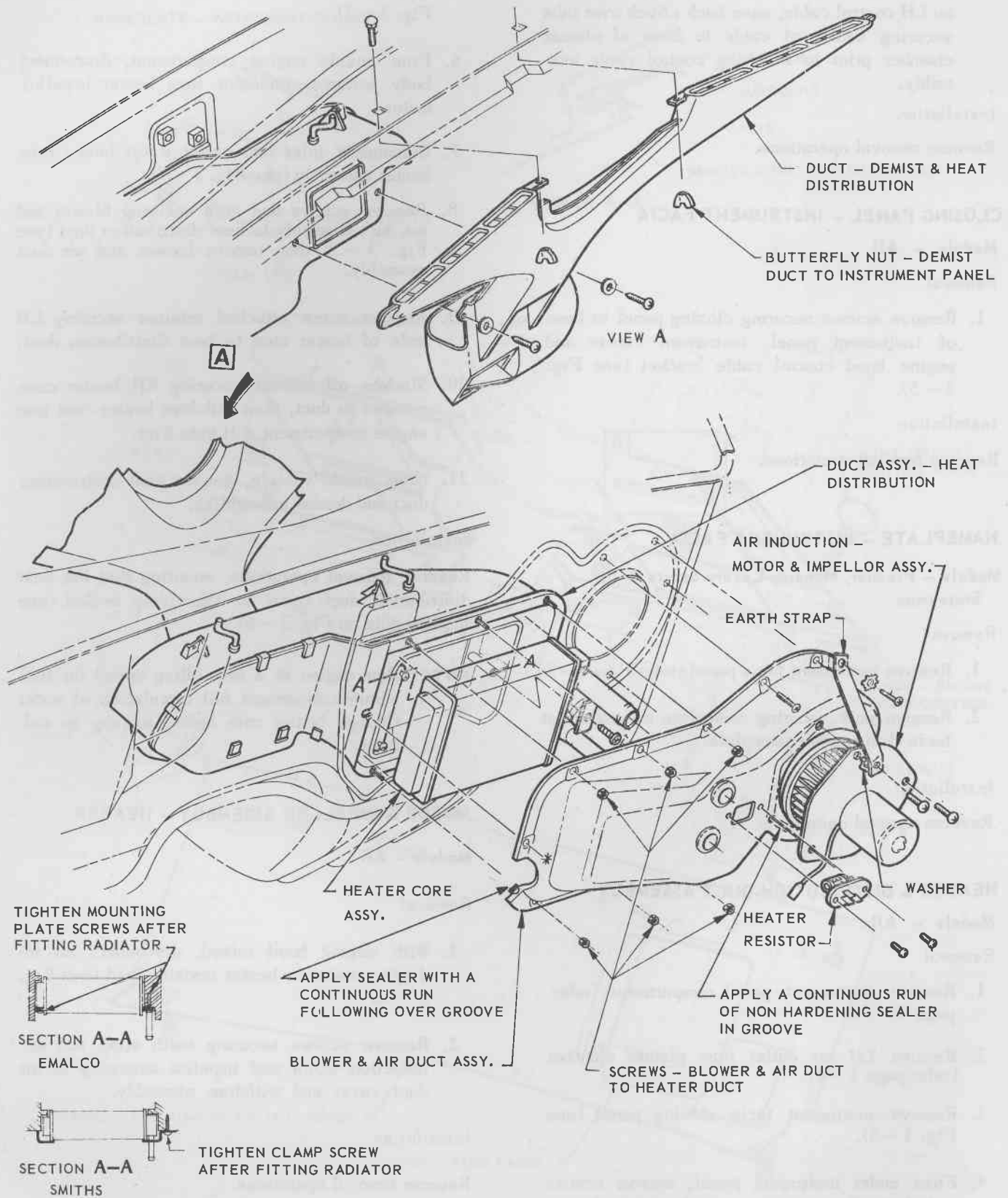
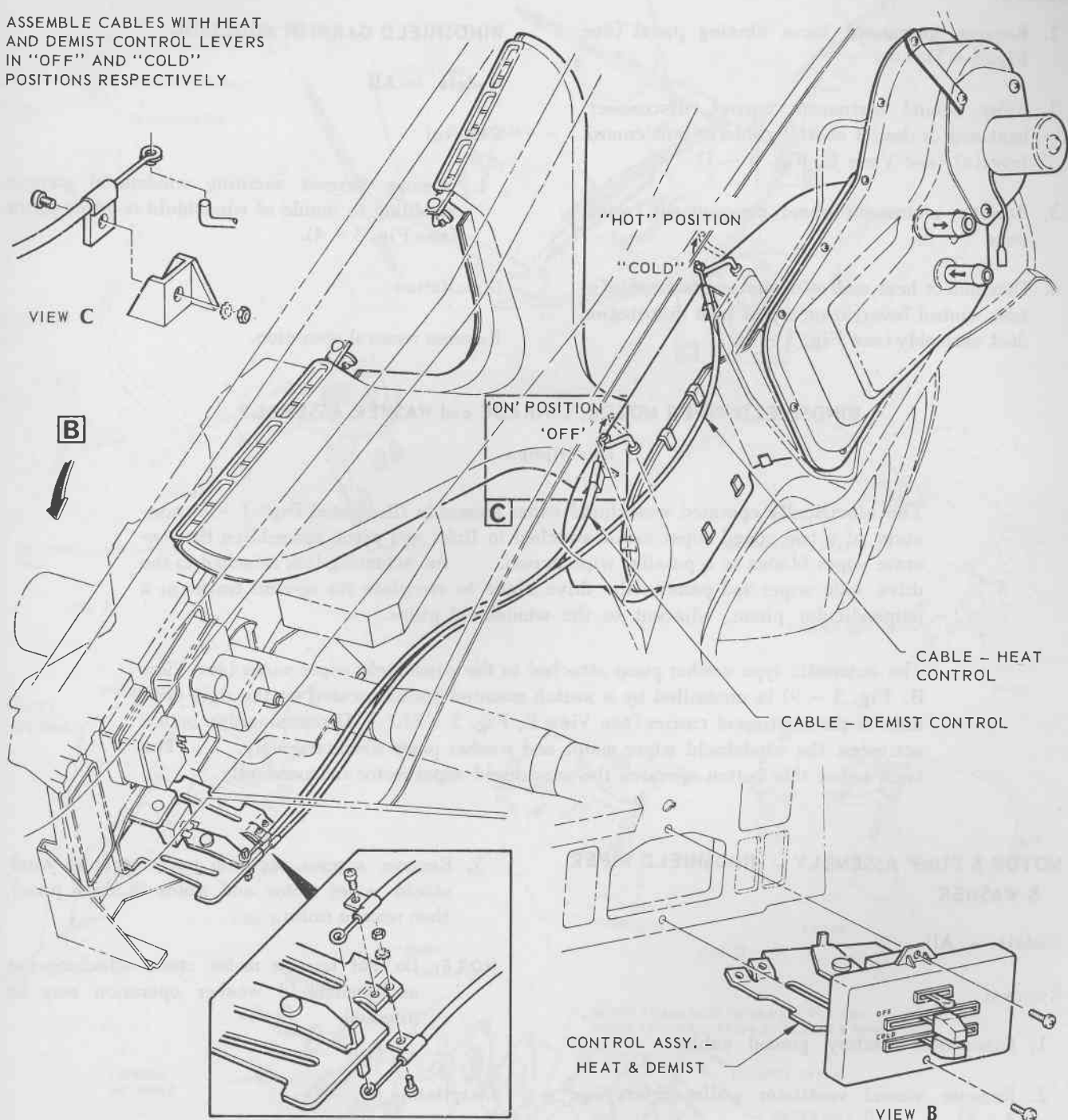


FIG. 3 - 6
MOTORISED HEATER INSTALLATION

ASSEMBLE CABLES WITH HEAT
AND DEMIST CONTROL LEVERS
IN "OFF" AND "COLD"
POSITIONS RESPECTIVELY



NOTE: ARROWS ON INLET &
OUTLET WATER NIPPLES
DENOTE WATER FLOW
DIRECTION.

FIG. 3 - 7
HEATER & DEMIST CONTROL INSTALLATION

CONTROL CABLE - HEAT and/or DEMIST**Models - All****Removal**

1. Remove instrument facia closing panel (see Fig. 3 - 5).
2. From behind instrument carrier, disconnect heat and/or demist control cable(s) from control lever(s) (see View B, Fig. 3 - 7).
3. Remove instrument panel compartment (refer page 3 - 5).
4. Disconnect heat and/or demist control cable(s) from control lever(s) on top of heat distribution duct assembly (see Fig. 3 - 7).

Installation

Reverse removal operations.

WINDSHIELD GARNISH MOULDING**Models - All****Removal**

1. Remove screws securing windshield garnish moulding to inside of windshield aperture pillar (see Fig. 3 - 4).

Installation

Reverse removal operation.

WINDSHIELD WIPER MOTOR, LINKAGE and WASHER ASSEMBLY**Description**

The electrically operated windshield wiper assembly illustrated Fig. 3 - 8, consists of a two speed wiper motor attached to links and pivot assemblies that operate wiper blades in a parallel wipe action. An actuating link attached to the drive side wiper rod permits the drive blade to complete its upward travel in a perpendicular plane, adjacent to the windshield pillar.

The automatic type washer pump attached to the windshield wiper motor (see View B, Fig. 3 - 9) is controlled by a switch mounted button located on the right hand side of the instrument carrier (see View E, Fig. 3 - 8). Depressing this button activates the windshield wiper motor and washer pump simultaneously. The knob below this button operates the windshield wiper motor independently.

MOTOR & PUMP ASSEMBLY - WINDSHIELD WIPER & WASHER**Models - All****Removal**

1. Disconnect battery ground cable.
2. Remove shroud ventilator grille (refer page 3 - 5).
3. Using ignition key, stop motor crank clear of motor mounting screws to permit removal of screws.
4. From within plenum chamber, remove clip securing wiper linkage to windshield wiper motor crank (see View C, Fig. 3 - 8).

5. Remove screws securing earth strap to windshield wiper motor and motor to dash panel, then remove motor.

NOTE: Do not remove motor crank attaching nut as windshield washer operation may be affected.

Installation

Reverse removal operations, ensuring that motor crank is in the park position prior to installation of wiper rods and blades (see View C, Fig. 3 - 8).

NOTE: For inspection, overhaul and testing of windshield wiper motor, refer VOL 5, 'HQ' Electrical Instruments and Gauges.

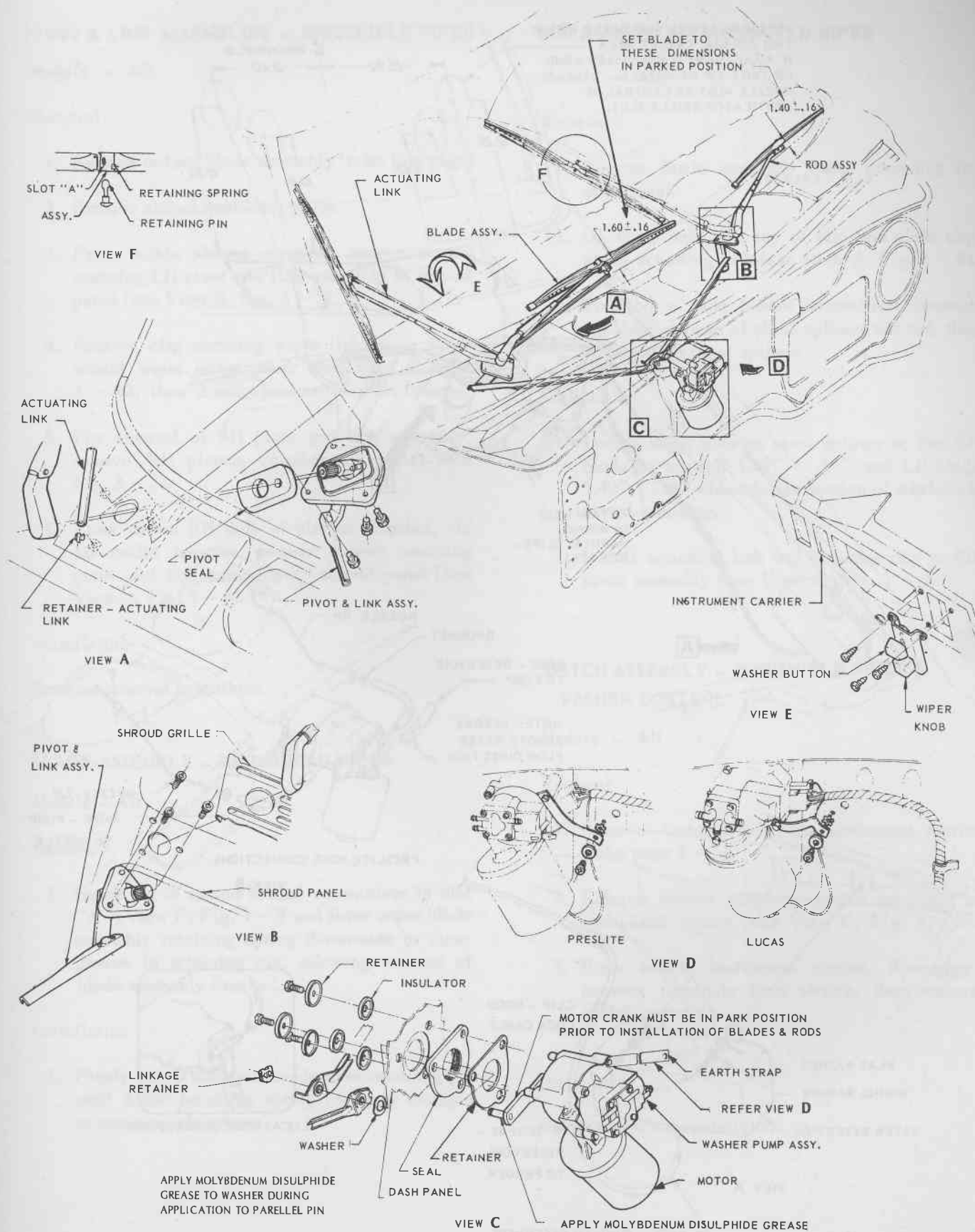


FIG. 3 - 8
WINDSHIELD WIPER ASSEMBLY - INSTALLATION

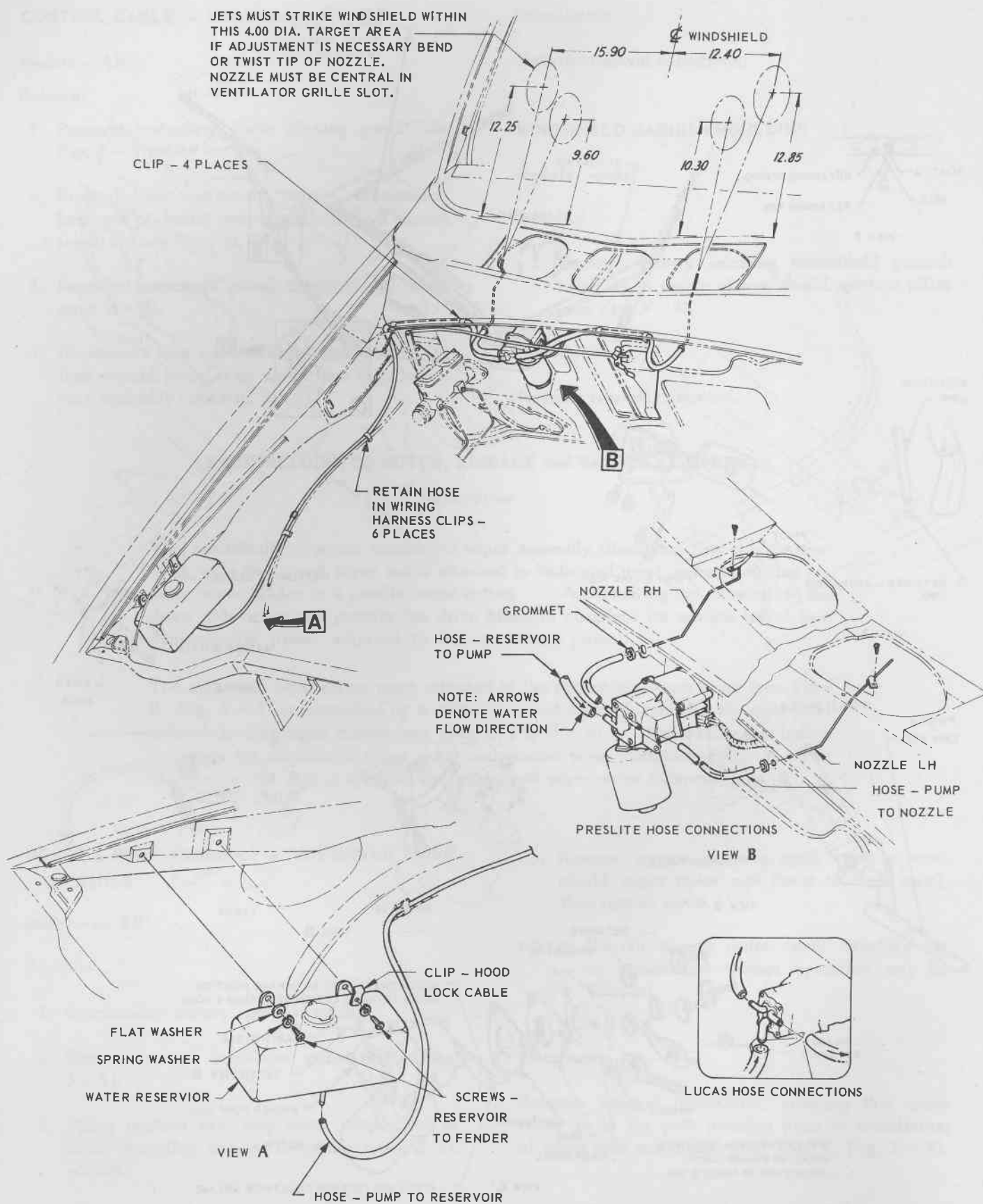


FIG. 3 - 9
WINDSHIELD WASHER ASSEMBLY INSTALLATION

PIVOT & LINK ASSEMBLIES - WINDSHIELD WIPER**Models - All****Removal**

1. Remove rod and blade assembly (refer this page)
2. Remove shroud ventilator grille.
3. From within plenum chamber, remove screws securing LH pivot and link assembly to shroud panel (see View B, Fig. 3 - 8).
4. Remove clip securing wiper linkage to windshield wiper motor crank (see View C, Fig. 3 - 8), then disengage inner end of linkage.
5. For removal of RH pivot and link assembly, remove RH plenum chamber air outlet (see Fig. 3 - 2).
6. From within RH side of plenum chamber, via air outlet aperture, remove screws securing pivot and link assembly to shroud panel (see View A, Fig. 3 - 8).

Installation

Reverse removal operations.

BLADE ASSEMBLY - WINDSHIELD WIPER**Models - All****Removal**

1. Insert tip of narrow bladed screwdriver in slot "A", View F, Fig. 3 - 8 and lever wiper blade assembly retaining spring downwards to clear groove in retaining pin, allowing removal of blade assembly from rod.

Installation

1. Firmly press blade assembly over retaining pin until blade retaining spring correctly engages in retaining pin groove.

ROD ASSEMBLY - WINDSHIELD WIPER**Models - All****Removal**

1. Remove blade assembly (refer preceding instructions).
2. On drive side, lift top of clip and slide clip along actuating link (see View A, Fig. 3 - 8).
3. Position a wide bladed screwdriver between shoulder at base of pivot splines and rod, then prise rod off pivot splines.

Installation

1. Locate wiper rods on pivot splines so that RH blade is located $1.60'' \pm .16''$ and LH blade $1.40'' \pm .16''$ above lower section of windshield reveal moulding.
2. Install actuating link and securing clip to RH pivot assembly (see View A, Fig. 3 - 8).

SWITCH ASSEMBLY - WINDSHIELD WIPER & WASHER CONTROL**Models - All****Removal**

1. Remove facia panel from instrument carrier (refer page 3 - 7).
2. Remove screws attaching switch assembly to instrument carrier (see View E, Fig. 3 - 8).
3. From behind instrument carrier, disengage harness terminals from switch, then remove switch assembly.

Installation

Reverse removal operations.

NOTES AND BULLETIN REFERENCES

[illegible]

SECTION 4

REAR QUARTER

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Description

The rear quarter inner and outer panels of 'HQ' coupes accommodate the various rear quarter hardware assemblies illustrated, Fig. 4 - 1. Plastic rollers attached to the sash plate of the quarter window roll in a guide assembly attached to the inner panel. A single arm window regulator positions the quarter window in the desired location.

Forward, rearward and in and out adjustment of the quarter glass is provided by adjustable studs and slotted holes in the quarter inner panel, and by an adjustable bracket attached to the lower section of the window guide assembly and quarter inner panel. An optional electrically operated rear quarter window regulator is available on all coupes except 803/437 models.

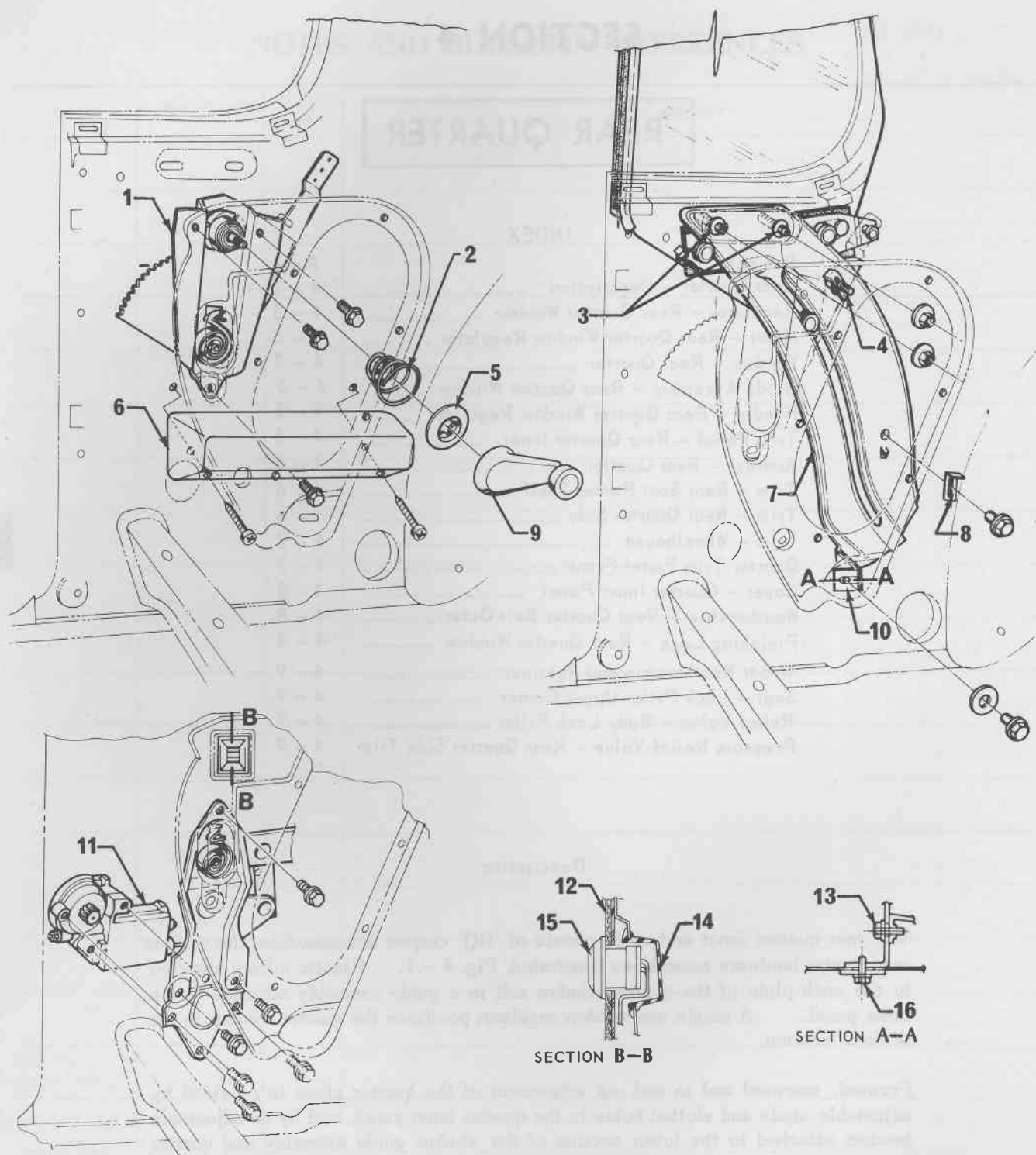


FIG. 4 - 1
REAR QUARTER HARDWARE INSTALLATION
MODEL - COUPE

- | | |
|--|--|
| 1. WINDOW REGULATOR | 9. DOOR INTERIOR HANDLE |
| 2. INTERIOR HANDLE SPRING | 10. WINDOW GUIDE ADJUSTING BRACKET - LOWER |
| 3. WINDOW GUIDE ADJUSTING STUD - UPPER | 11. ELECTRIC WINDOW REGULATOR MOTOR - OPTION |
| 4. WINDOW UP TRAVEL STOP | 12. REAR QUARTER TRIM PANEL |
| 5. INTERIOR HANDLE BEARING PLATE | 13. WINDOW GUIDE IN & OUT ADJUSTMENT - LOWER |
| 6. DOOR ARMREST - MODELS 808-811-812-818 | 14. ELECTRIC WINDOW REGULATOR SWITCH SEAL - OPTION |
| 7. WINDOW GUIDE | 15. ELECTRIC WINDOW REGULATOR SWITCH - OPTION |
| 8. WINDOW DOWN TRAVEL STOP | 16. WINDOW GUIDE FORWARD & REARWARD ADJUSTMENT - LOWER |

REAR QUARTER WINDOW REGULATOR

Models - Coupe

Removal

1. On GTS and Luxury sports and coupes, remove rear quarter armrest and on all coupes, rear quarter window regulator handle (refer page 4 - 5).
2. Remove rear seat cushion and seat back (refer page 8 - 1).
3. Remove rear quarter inner trim panel (refer page 4 - 5).
4. Remove screw attached quarter inner cover panel.
5. On models exercising the optional electrically operated window regulator, disconnect electric harness at motor.
6. With quarter window supported in the raised position, remove screws securing window regulator to quarter inner panel (see Fig. 4 - 1).
7. Disengage window assembly roller from regulator arm cam and remove regulator assembly out through quarter inner panel aperture.

Installation

Ensure that frictional surfaces of the quarter window regulator are adequately lubricated with zinc oxide grease or light oil prior to reversing removal operations.

MOTOR - QUARTER WINDOW REGULATOR

Models - Option on all Coupes except 803/437

Removal

1. Remove quarter window regulator assembly (refer preceding instructions).

WARNING: Do not loosen motor to window regulator attaching bolts prior to performing operation 2.

2. Lock motor to regulator assembly by using a 1/4" bolt, 3/4" long, 1.5/8" O.D. flat washer and an attaching nut attached through hole in regulator base plate and curved slot in sector plate.

3. Remove motor to regulator assembly attaching bolts.

Installation

Reverse removal operations, ensuring that frictional surfaces of regulator sector and motor gear are adequately lubricated with zinc oxide grease or light oil.

REAR QUARTER WINDOW

Models - Coupe

Removal

1. On GTS and luxury sports coupes, remove rear quarter armrest and on all coupes, rear quarter window regulator handle (refer Page 4 - 5).
2. Remove rear seat cushion and seat back (refer page 8 - 1).
3. Remove rear quarter inner trim panel (refer page 4 - 5).
4. Remove screw attached quarter inner cover panel.
5. Remove up-travel stop bracket (see Fig. 4 - 1).
6. Remove quarter belt outer weatherstrip and rear quarter finishing lace (refer Page 4 - 8).
7. Loosen bolt securing adjusting bracket to lower section of quarter window guide assembly (see Section A-A, Fig. 4 - 1).
8. Loosen lock nuts locking quarter window guide assembly upper adjusting studs to quarter inner panel.
9. Turn these studs in an anti clockwise direction to allow window to be positioned for removal through window aperture.
10. Raise and remove window assembly out through window aperture and place on clean protected surface.

Installation

Reverse removal operations.

Adjustment

Forward, rearward or in and out adjustment of the rear quarter window is provided by a slotted bracket attached to the lower section of the guide assembly and a slotted hole in the quarter inner panel (see Section A-A, Fig. 4 - 1).

Similar adjustment of the upper section of the guide assembly is provided by adjusting studs mounted in the guide assembly and secured through slotted holes in the quarter inner panel with lock nuts (see Fig. 4 - 1).

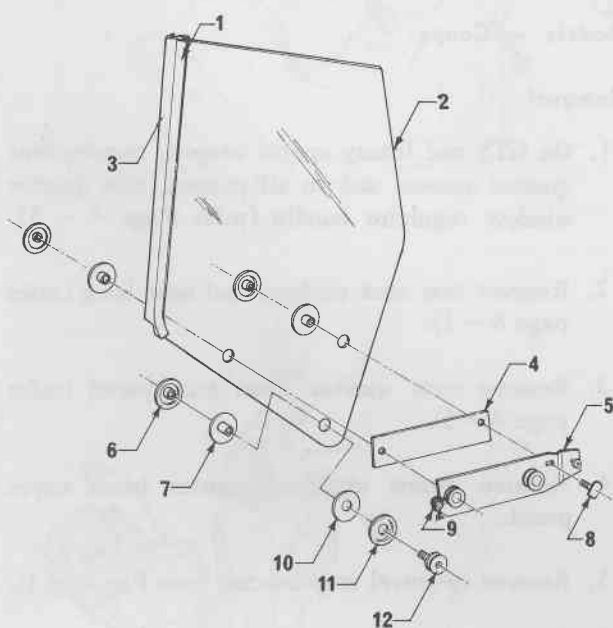


FIG. 4 - 2

REAR QUARTER WINDOW ASSEMBLY

1. CHANNEL - QUARTER WINDOW FRONT SASH
2. GLASS - QUARTER WINDOW
3. WEATHERSTRIP - QUARTER WINDOW FRONT
4. FILLER - QUARTER WINDOW LOWER SASH PLATE
5. PLATE - QUARTER WINDOW LOWER SASH
6. NUT - QUARTER WINDOW GUIDE ROLLER TEE
7. BUSHING - QUARTER WINDOW GUIDE ROLLER
8. PIN - QUARTER WINDOW GUIDE UPPER FRT. ROLLER
9. SPRING - QUARTER WINDOW GUIDE ROLLER TENSION
10. WASHER - QUARTER WINDOW GUIDE LOWER ROLLER - RUBBER
11. WASHER - QUARTER WINDOW GUIDE LOWER ROLLER - METAL
12. ROLLER ASSY. - QUARTER WINDOW GUIDE LOWER

Disassembly

1. With quarter window assembly positioned face down on a clean protected surface, disengage tension spring from front roller (see Fig. 4 - 2).
2. Turn window over and using Tool No. 1A8 (see Fig. 4 - 3) remove roller tee nuts and plastic bushings from bolts.
3. Lift glass and weatherstrip assembly off sash plate and roller assemblies and remove sash plate filler
4. Slide out weatherstrip from retainer on leading edge of glass
5. Holding glass face down on an insulated surface, tap weatherstrip retainer off glass, sliding a hammer across glass.

WARNING: Ensure that hammer head is smooth and free from burrs, which can damage glass.

6. Remove and discard old filler strip from inside of weather retainer.

Assembly

1. Apply a film of liquid soap to rear inner surface of weatherstrip retainer.
2. Position glass on its rear edge and place a new filler strip evenly over leading edge of quarter window glass.
3. Locate glass channel of weatherstrip retainer over filler strip, with end of retainer in line with top corner of leading edge of glass.
4. Using a steel strip 6" x 1" x 1/8" positioned in weatherstrip channel of retainer, carefully tap retainer onto glass.
5. Apply a film of liquid soap to weatherstrip channel of retainer prior to sliding weatherstrip into channel.
6. With glass face down, position sash plate filler, metal washers, sash plate and roller assemblies over attaching holes in glass.
7. Install plastic bushings and roller tee nuts on reverse side of glass, torquing tee nuts to 72 in. lbs. (see Fig. 4 - 3).

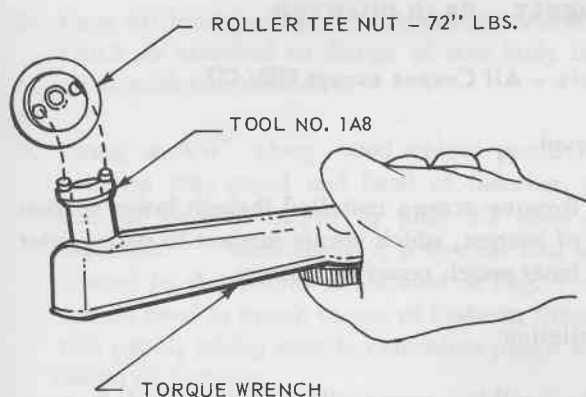


FIG. 4 - 3
ROLLER TEE NUT INSTALLATION

GUIDE ASSEMBLY - REAR QUARTER WINDOW

Models - Coupe

Removal

1. On GTS and Premier coupes, remove rear quarter armrest and on all coupes, rear quarter window regulator handle (refer this Page).
2. Remove rear seat cushion and seat back (refer Page 8 - 1).
3. Remove rear quarter inner trim panel (refer this Page).
4. Remove screw attached quarter inner cover panel.
5. Remove bolt securing lower section of guide assembly adjusting bracket to quarter inner panel (see Section A-A, Fig. 4 - 1).
6. Remove lock nuts locking quarter window guide assembly upper adjusting studs to inner panel.
7. Turn adjusting studs anti-clockwise until they become disengaged from guide assembly.
8. Loosen window regulator attaching screws and slide regulator arm cam off quarter window roller.
9. Disengage guide assembly from quarter window rollers and remove assembly out through quarter inner panel aperture.

Installation

Reverse removal operations.

NOTE: Refer to quarter window adjustment, page 4 - 4, for adjustment of guide assembly.

HANDLE - REAR QUARTER WINDOW REGULATOR

Models - Coupe

Removal

1. Insert slotted end of door interior handle removal Tool No. 21812X, Fig. 4 - 4, between base of handle and bearing plate and in line with arm of handle, disengaging horse-shoe shaped retaining spring and releasing handle.

Installation

1. Locate horse-shoe shaped retaining spring in handle with open ends of spring towards arm of handle and press spring into the engaged position.
2. Install handle bearing plate into regulator splines with raised face towards door.
3. Press handle onto regulator until retaining spring engages behind splines, ensuring that the handle is positioned as illustrated (see Fig. 4 - 4).

TRIM PANEL - REAR QUARTER INNER

Models - Coupe

Removal

1. On GTS and luxury sports coupes, remove rear quarter armrest and on all coupes, rear quarter window regulator handle (refer preceding instructions).
2. Remove rear seat cushion and seat back (refer Page 8 - 1).

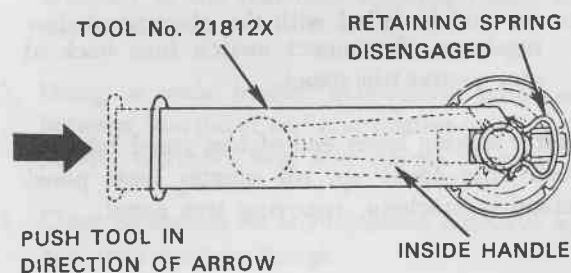


FIG. 4 - 4
WINDOW REGULATOR HANDLE REMOVAL

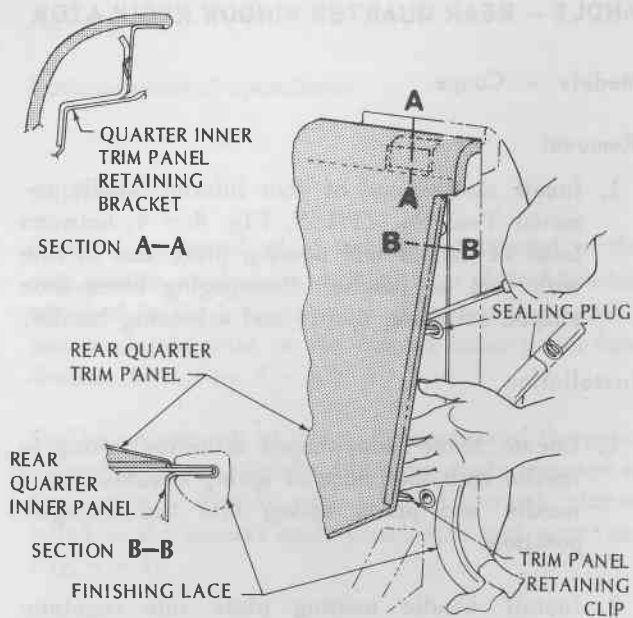


FIG. 4 - 5
REAR QUARTER TRIM PANEL REMOVAL
MODEL - COUPE

3. Loosen screw securing rear end of sill plate to rocker panel, then remove finishing lace from leading edge of rear quarter panel (see Fig. 4 - 5).
4. Remove plastic sleeve covering seat belt attaching bolt, then remove bolt and associated parts.
5. Carefully ease off leading edge of trim panel, which is attached to leading edge of rear quarter panel with adhesive cement.
6. Remove screws securing rear lower and upper end of trim panel to rear quarter inner panel.
7. Using a wide bladed screwdriver positioned between leading edge of trim and rear quarter inner panels, carefully prise trim panel clips from inner panel (see Fig. 4 - 5).

NOTE: On models fitted with the electric window regulator, disconnect switch from back of rear quarter trim panel.

8. Partly raising lower end of trim panel inboard, push trim panel up, off quarter inner panel retaining brackets, removing trim panel.

Installation

Reverse removal operations.

ARMREST - REAR QUARTER

Models - All Coupes except 803/437

Removal

1. Remove screws installed through lower section of armrest, which secure armrest to rear quarter inner panel, removing armrest.

Installation

Apply caulking compound around armrest to rear quarter inner panel attaching screw holes prior to reversing removal operations.

TRIM - REAR SEAT PARCEL SHELF

Models - Sedan and Coupe

Removal

1. Remove rear seat cushion and seat back (refer Page 8 - 1).
2. With rear compartment lid open, tap out parcel shelf plastic fasteners which protrude through rear parcel shelf into rear compartment.
3. Lift out rear parcel shelf.

Installation

Reverse removal operations, using new plastic fasteners to secure trim panel to rear parcel shelf.

TRIM - REAR QUARTER SIDE

Models - Station Sedan

Removal

1. Remove rear seat cushion and lower rear seat back (refer Page 8 - 1).
2. Loosen screws securing rear sill plate to rocker panel.
3. Ease finishing lace covering leading edge of trim panel off rear body lock pillar.
4. Remove screw securing rear lower corner of trim panel to rear lamp access aperture.

5. Ease off leading edge of rear quarter side trim, which is attached to flange of rear body lock pillar with trim adhesive.
6. Using a 3/8" sharp wood chisel positioned between trim panel and head of fastener, tap end of chisel sharply to pare off head of fastener. Alternatively, a special tool fabricated to dimensions illustrated in Fig. 4 - 6 can be used to punch centre of fastener through trim panel, taking care to centralize punch with centre of fastener.
7. On Kingswood and Belmont models, ease base of trim panel inboard, disengaging top edge of panel from trim retainer. On Premier models, position a wide bladed screwdriver between trim and quarter panels, prising under each fastener until trim panel is disengaged.
8. Remove or smooth out any hardened adhesive cement from flange of rear body lock pillar.

Installation

Reverse removal operations, attaching leading edge of rear quarter side trim to flange of rear body lock pillar with PVC adhesive cement and using new trim fasteners, install lower section of trim panel to rear quarter inner panel.

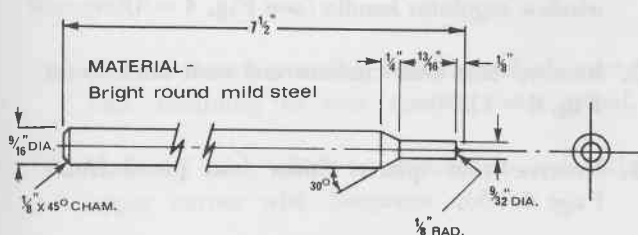


FIG. 4 - 6
TRIM FASTENER REMOVAL TOOL

TRIM - WHEELHOUSE

Models - Station Sedan except Belmont

Removal

1. Remove rear seat cushion and back (refer Page 8 - 1).
2. Remove spare wheel cover and front tonneau floor (refer Page 2 - 1).

3. Remove rear seat back stop.
4. Remove outer seat belt lower attaching bolt.
5. Remove rear quarter trim panel and quarter trim panel front (refer Page 4 - 5 and following instructions).
6. Remove screw securing front end tonneau floor sill panel covering to sill panel, easing back covering sufficient to remove wheelhouse cover.
7. Ease off edges of wheelhouse cover, which are attached to rear quarter and floor panels with trim adhesive.
8. Clean or smooth off any hardened adhesive from rear quarter and floor panels.

Installation

Reverse removal operations, ensuring that during installation of the rear seat back stop and outer seat belt lower attaching bolt, caulking compound is used to seal around attaching holes.

QUARTER TRIM PANEL FRONT

Models - Station Sedan

Removal

1. Lift out rear seat cushion.
2. Remove rear sill plate (refer Page 2 - 1).
3. Remove finishing lace covering leading edge of quarter trim panel front.
4. Ease leading edge of trim panel, which is attached to the rear door aperture flange with trim adhesive.
5. Using a wide bladed screwdriver positioned between trim panel and rear quarter panel, prise plastic fasteners from rear quarter panel.
6. Clean or smooth off any hardened adhesive from rear door aperture flange.

Installation

Reverse removal operations.

COVER - QUARTER INNER PANEL

Models - Coupe

Removal

1. On GTS and luxury sports coupes, remove rear quarter armrest and on all coupes, rear quarter window regulator handle (refer Page 4 - 5).
2. Remove rear seat cushion and seat back (refer Page 8 - 1).
3. Remove rear quarter inner trim panel (refer Page 4 - 5).
4. Remove screws securing quarter inner cover panel to rear quarter inner panel and remove cover panel.

Installation

1. Apply a continuous bead of caulking compound around aperture in rear quarter inner panel prior to reversing removal operations.

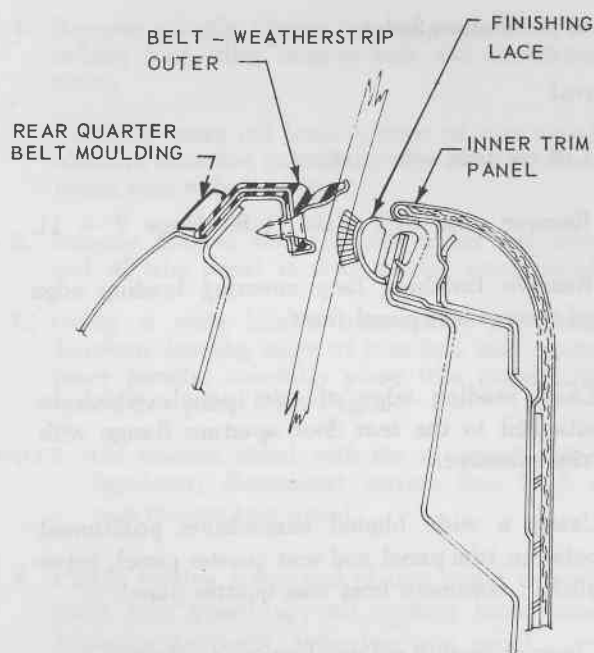


FIG. 4 - 7

OUTER BELT WEATHERSTRIP INSTALLATION

WEATHERSTRIP - REAR QUARTER BELT OUTER

Models - Coupe

Removal

1. Remove quarter belt moulding and attaching clips (refer Page 12 - 1).
2. With rear quarter window fully lowered, remove screws securing weatherstrip assembly to rear quarter outer panel (see Fig. 4 - 7).

Installation

Reverse removal operations.

FINISHING LACE - REAR QUARTER WINDOW

Models - Coupe

Removal

1. On GTS and luxury sports coupes, remove rear quarter armrest and on all coupes, rear quarter window regulator handle (see Fig. 4 - 4).
2. Remove rear seat cushion and seat back (refer Fig. 8 - 1).
3. Remove rear quarter inner trim panel (refer Page 4 - 5).
4. Ease rear finishing lace off quarter inner panel (see Fig. 4 - 5).

Installation

Reverse removal operations.

UPPER WEATHERSTRIP AND RETAINER

Models - Coupe

Removal

1. With door open, lower rear quarter window on side from which weatherstrip and/or retainer is to be removed.
2. Ease weatherstrip, the front end of which is attached to retainer with neoprene cement, out of retainer.
3. Remove screws securing weatherstrip retainer to roof side rail, then remove retainer.
4. Remove or smooth off any hardened sealer from weatherstrip retainer and/or roof side rail.

Installation

Apply a continuous bead of plastic sealer between retainer and roof side rail prior to reversing removal operations.

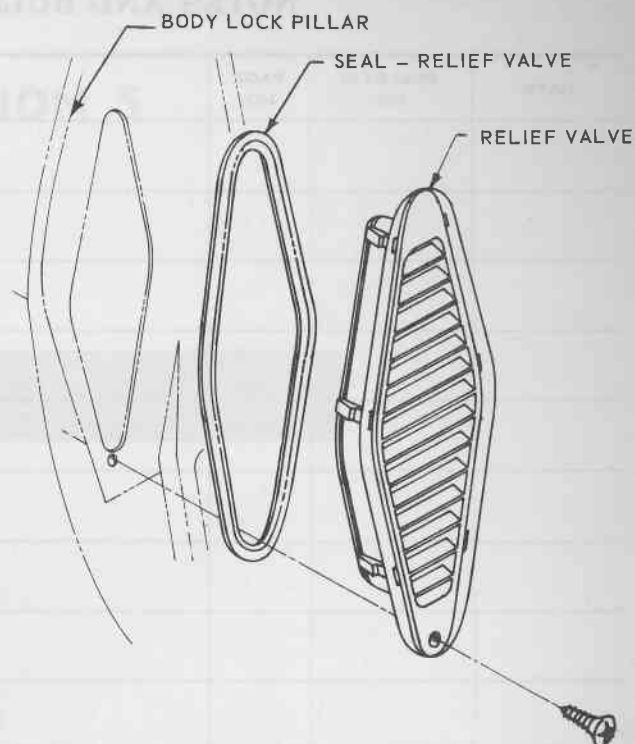


FIG. 4 - 8

LOCK PILLAR RELIEF VALVE INSTALLATION

SEAL - LOCK PILLAR UPPER CORNER

Models - Coupe

Removal

1. Remove screw securing leading end of quarter belt moulding to rear quarter outer panel.
2. Ease off seal, which is attached to lock pillar upper corner with Neoprene cement.
3. Remove or smooth out any hardened cement remaining on lock pillar.

Installation

Reverse removal operations.

2. Ease out bottom of valve, then disengage remainder of valve from lock pillar.

Installation

Reverse removal operations.

PRESSURE RELIEF VALVE - REAR QUARTER SIDE TRIM

Models - Station Sedan

Removal

Remove screws securing pressure relief valve to rear quarter side trim, then ease out valve.

Installation

Reverse removal operations.

RELIEF VALVE - BODY LOCK PILLAR

Models - All

Removal

1. Remove screw securing lower end of relief valve to body lock pillar (see Fig. 4 - 8).

NOTES AND BULLETIN REFERENCES

[illegible]

SECTION 5

REAR COMPARTMENT

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LID ASSEMBLY - REAR COMPARTMENT

Description

The rear compartment lid assembly (see Fig. 5-1) is operated by torsion rods attached to each hinge. These assist as a counter balance when raising the lid and hold lid in the raised position when lid is open. Retaining notches are provided at each hinge for torsion rod adjustment (see View D, Fig. 5-1). The lid lock, which is operated by the lock cylinder and key, releases when the key is turned. When the lid is closed, the spring loaded lock bolt engages with and locks behind the striker. Lid adjustments are provided for at hinge attachments and lock striker.

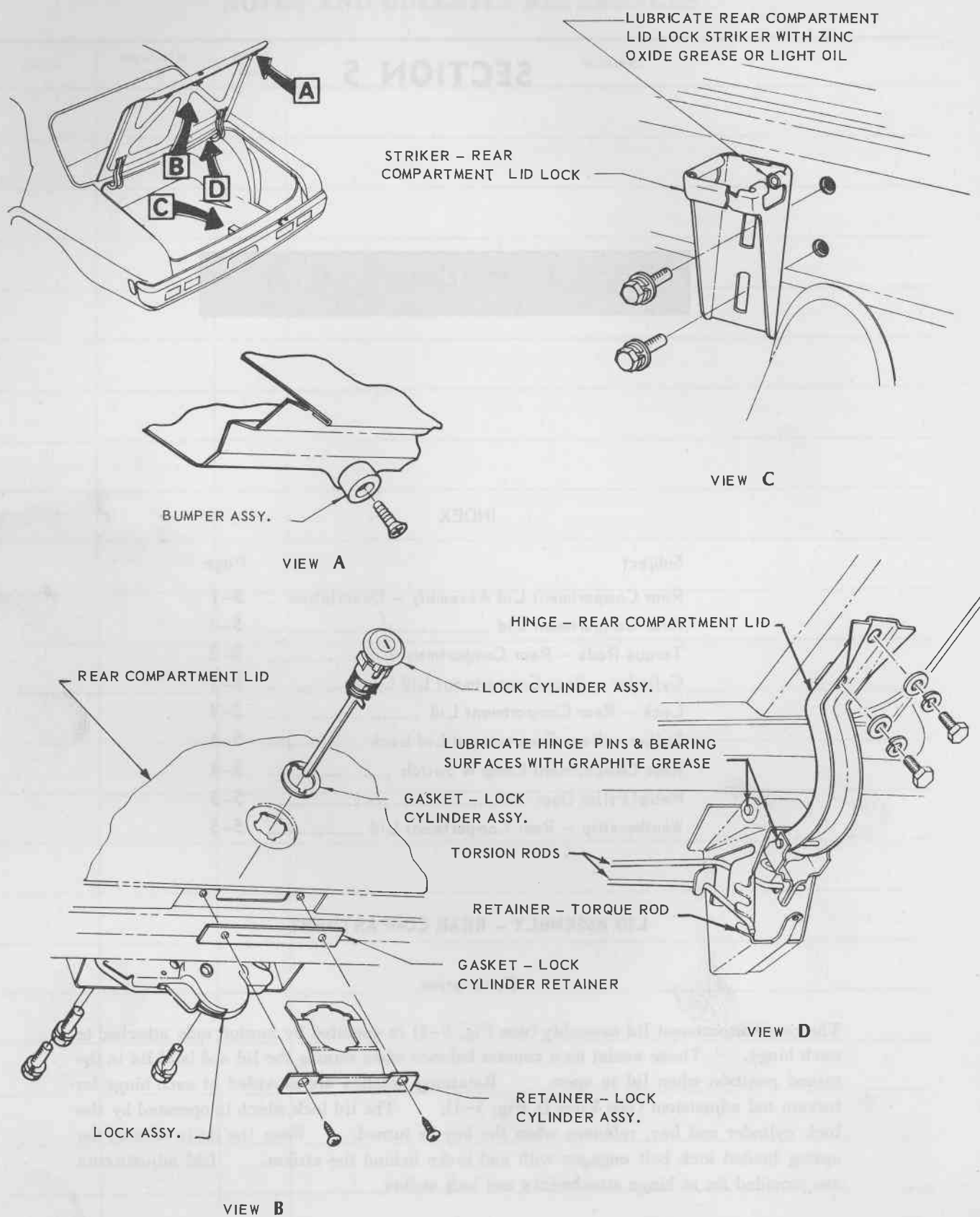


FIG. 5 - 1
REAR COMPARTMENT LID

REAR COMPARTMENT LID

Models - Sedan & Coupe

Removal

1. Raise rear compartment lid and place a protective cover over adjacent paint finish surface.
2. Pencil scribe location of hinge strap on lid inner panel to facilitate installation.
3. With the aid of an assistant to support lid, remove hinge to lid attaching bolts (see View D, Fig. 5-1) then remove lid assembly.

Installation

Reverse removal operations.

Adjustment

Elongated holes in the hinge straps provide forward, rearward and side adjustment of the lid. Horizontal adjustment of the hinge area of the lid can be achieved as follows:-

- (a) To raise lid at hinge area, place a shim between lid inner panel and one or both hinge straps at forward attaching bolt locations.
- (b) To lower lid at hinge area, place a shim between lid inner panel and one or both hinge straps at rearward attaching bolt locations. Adjust lock striker to allow rear compartment lid to seat firmly on rubber bumpers located on each side of compartment lid (see View A, Fig. 5-1).

IMPORTANT: Following any adjustment of the rear compartment lid, it is important that the lid lock striker engages correctly with the lid lock. To check correct engagement, place a small piece of plasticine or similar material at each side of the lock bolt cover and close lid. Open lid and check engagement of lock cover with striker. Where required, adjust striker so that lock engages centrally with striker.

TORQUE RODS - REAR COMPARTMENT LID

Models - Sedan & Coupe

Removal

1. Raise and support compartment lid.
2. Pencil scribe location of torque rod on retainer to facilitate installation.
3. Using a length of steel tubing approximately 12" long, with an inside diameter of 1/2", place one end of tube over end of torque rod, then lever torque rod from retainer.
4. Disengage opposite end of torque rod from hinge assembly (see View D, Fig. 5-1) then remove rod.

Installation

Reverse removal operations.

Adjustment

The position of the torque rods in notches of the retainer determine the amount of effort required to open and close the rear compartment lid. If the torque rod is located in the lowest notch of the retainer, a greater amount of effort is required to open the lid and less effort required to close it.

If the torque rod is located in the top notch of the retainer, the effect is opposite. To adjust the torque rods, position a length of tubing approximately 12" long, with an inside diameter of 1/2" over end of torque rod, then lever torque rod from retainer.

CYLINDER - REAR COMPARTMENT LID LOCK

Models - Sedan & Coupe

Description

The lid cylinder is attached to the rear compartment lid with a screw attached retainer (see View B, Fig. 5-1). A rubber gasket between the retainer and rear compartment lid seals against dust and water entry into the body.

Removal

1. Remove lock cylinder retainer attaching screws.
2. Apply masking tape adjacent to retainer to protect paint finish.
3. With a wide bladed screwdriver inserted between flange of retainer and lid inner panel, partly prise retainer out (approximately 1/2") then withdraw lock cylinder.

Installation

Reverse removal operations.

NOTE: Due to the adverse effect of dust on lock cylinder operation, it is advisable whenever the lock cylinder is removed, to wash it with petrol, dry it with an air hose and lubricate it with powdered graphite.

DO NOT USE OIL.

LOCK - REAR COMPARTMENT LID

Models - Sedan & Coupe

Removal

1. Remove rear compartment lid lock cylinder (refer preceding instructions).
2. Remove bolts securing lock to rear compartment lid inner panel (see View B, Fig. 5-1) then remove lock.

Installation

Reverse removal operations and check operation of lock.

STRIKER - REAR COMPARTMENT LID LOCK

Models - Sedan & Coupe

Removal

1. Pencil scribe location of lock striker on rear end inner panel to facilitate installation.
2. Remove bolts securing lock striker to rear end inner panel (see View C, Fig. 5-1) then remove striker.

Installation

Position lock striker within scribe marks and install attaching bolts.

Adjustment

Slots in rear face of lock striker provide adjustment for striker.

LAMP SWITCH - REAR COMPARTMENT

Models - Sedan & Coupe exc. Belmont & Kingswood

Removal

1. Disconnect battery ground cable.
2. With rear compartment lid raised, depress switch plunger from bracket attached to RH front of rear compartment gutter, then remove harness terminal from base of plunger, disassembling switch (see Fig. 5-2).
3. Using a thin bladed screwdriver, carefully prise switch body from bracket.

Installation.

Reverse removal operations.

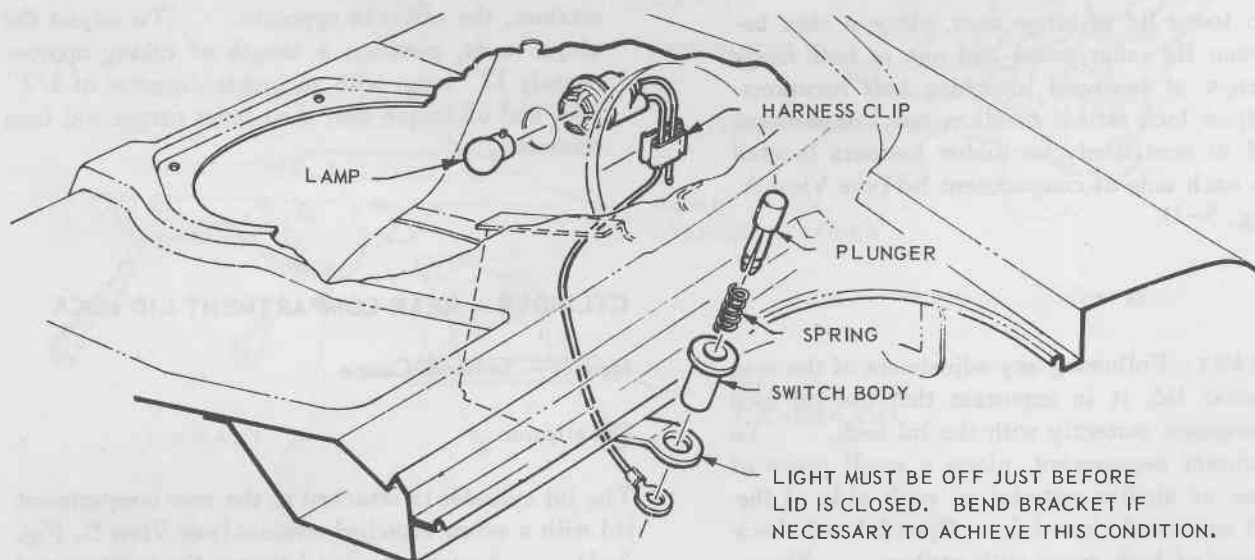


FIG. 5 - 2

REAR COMPARTMENT LAMP & SWITCH INSTALLATION
MODELS - SEDAN & COUPE EXC. BELMONT & KINGSWOOD

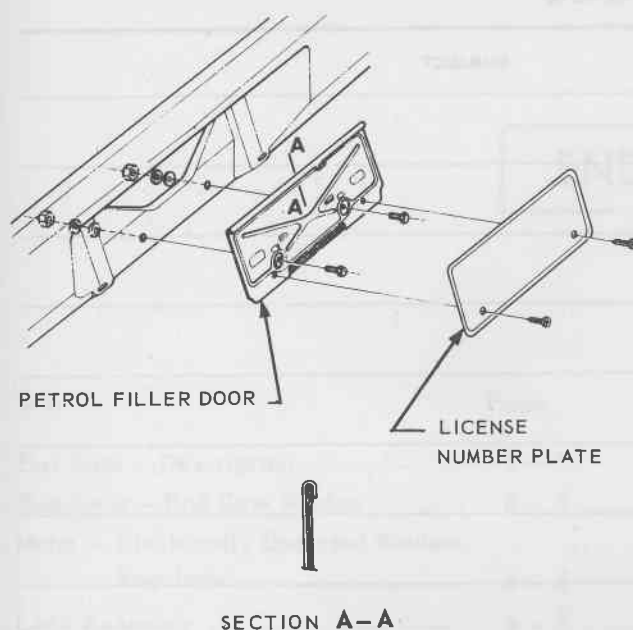


FIG. 5 - 3
PETROL FILLER DOOR INSTALLATION

PETROL FILLER DOOR ASSEMBLY

Models - Sedan & Coupe

Removal

1. Remove screws securing rear license number plate to petrol filler door (see Fig. 5-3) and remove plate.
2. Remove nuts and bolts securing petrol filler door assembly to back panel lower.

Installation

Reverse removal operations.

WEATHERSTRIP - REAR COMPARTMENT LID

Models - Sedan & Coupe

The rear compartment weatherstrip is a constant rubber section, secured in position with wire clips inserted into holes at regular intervals around the rear compartment lid.

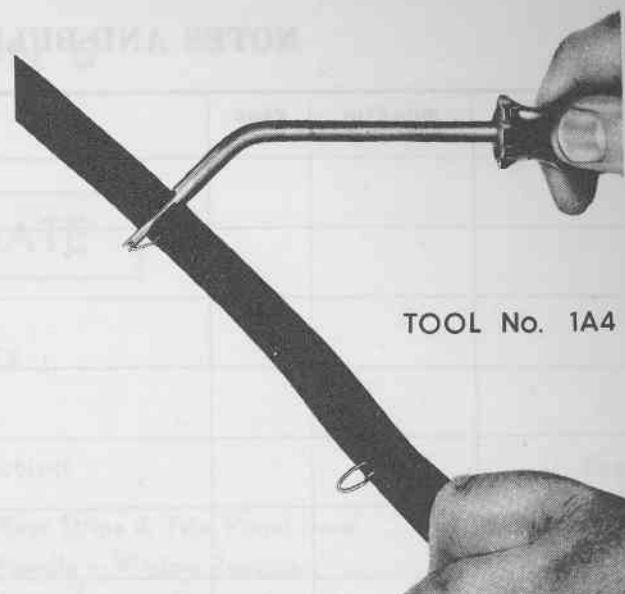


FIG. 5 - 4
WEATHERSTRIP CLIP REMOVAL & INSTALLING TOOL

Removal

1. Using weatherstrip clip inserting tool No. 1A4, (Fig. 5-4), or a similar suitable tool at clip locations, carefully prise clips from retaining holes.
2. Check weatherstrip clips for correct shape and reform if necessary, using clip reforming tool No. 1A3, (Fig. 5-5).

Installation

Reverse removal operations.



FIG. 5 - 5
WEATHERSTRIP CLIP REFORMING TOOL

SECTION 6

END GATE

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END GATE

Description

The manually controlled end gate window regulator is operated by a folding handle located centrally in the end gate outer panel (see Fig. 6-1).

The optional electrically operated end gate window regulator can be operated by one of two switches:

1. A switch located to right of steering column, at base of instrument panel, operable only with ignition switch "ON".
2. A key operated lock cylinder switch, located centrally in end gate outer panel escutcheon (see Fig. 6-2).

A safety switch located above the LH end gate lock prevents operation of electrically controlled end gate window regulator when the end gate is not completely closed. After lowering window, the end gate can be opened by a remote control handle situated centrally above the end gate inner trim panel.

The end gate is counter balanced with a single torque rod secured to the RH side of the rear end panel and to the end gate inner panel with retainer plates. When the end gate is opened, the end of the torque rod secured to the body remains stationary whilst the remainder of the rod moves with the end gate, thereby creating an assisting torque for lowering and raising the end gate.

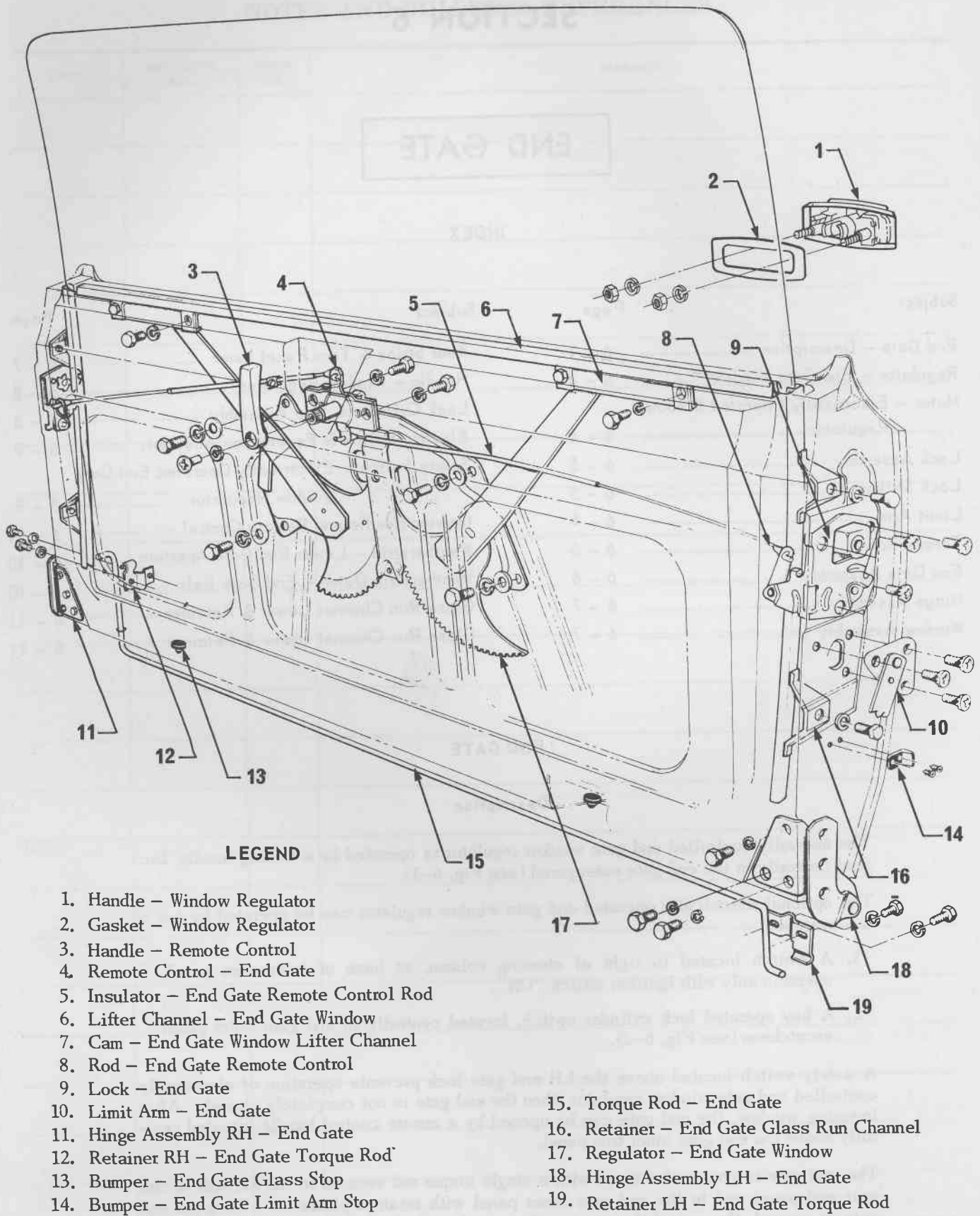


FIG. 6 - 1
END GATE HARDWARE INSTALLATION

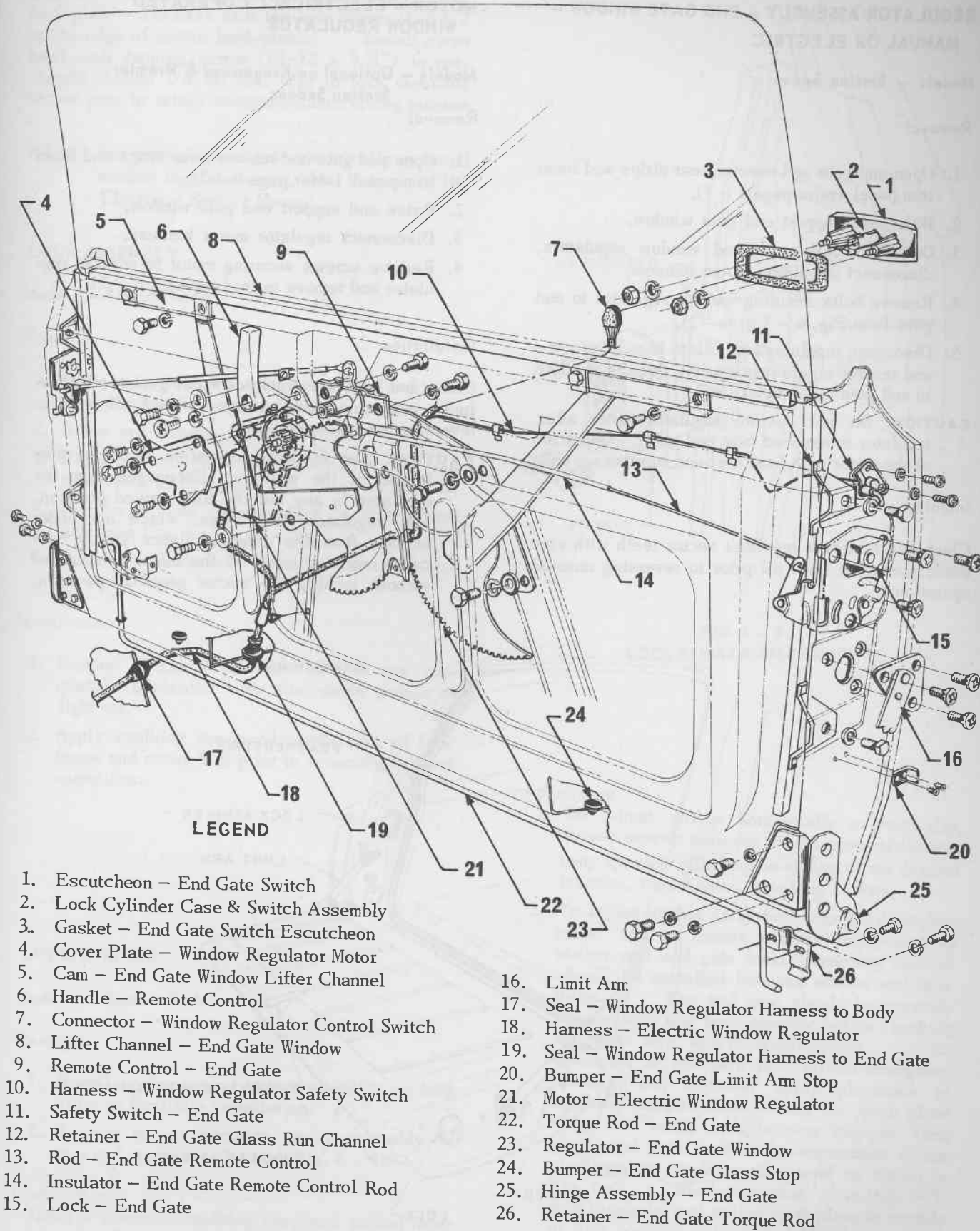


FIG. 6 - 2
 END GATE HARDWARE INSTALLATION
 MODELS - OPTIONAL ON KINGWOOD & PREMIER STATION SEDAN

REGULATOR ASSEMBLY - END GATE WINDOW - MANUAL OR ELECTRIC

Models - Station Sedan

Removal

1. Open end gate and remove wear strips and inner trim panel (refer page 6 - 7).
2. Raise and support end gate window.
3. On electrically operated window regulators, disconnect regulator motor harness.
4. Remove bolts securing window regulator to end gate (see Fig. 6 - 1 or 6 - 2).
5. Disengage regulator arm rollers from lifter cams and remove regulator assembly through aperture in end gate inner panel.

CAUTION: Do not operate regulator motor after regulator is removed from end gate. Operation of the motor with load removed may damage unit.

Installation

Clean and lubricate regulator sector teeth with zinc oxide grease or light oil prior to reversing removal operations.

MOTOR - ELECTRICALLY OPERATED WINDOW REGULATOR

Models - Optional on Kingswood & Premier
Station Sedans

Removal

1. Open end gate and remove wear strips and inner trim panel (refer page 6 - 7).
2. Raise and support end gate window.
3. Disconnect regulator motor harness.
4. Remove screws securing motor to window regulator and remove motor (see Fig. 6 - 2).

Installation

Clean and lubricate regulator motor gear teeth sparingly with zinc oxide grease or light oil prior to reversing removal operations.

CAUTION: The following operation **MUST** be performed if the motor is disengaged from the regulator in any but the fully raised position. The regulator lifter arms, which are under tension from the counter-balance spring, can cause serious injury if the motor is removed without locking the sector gears in position.

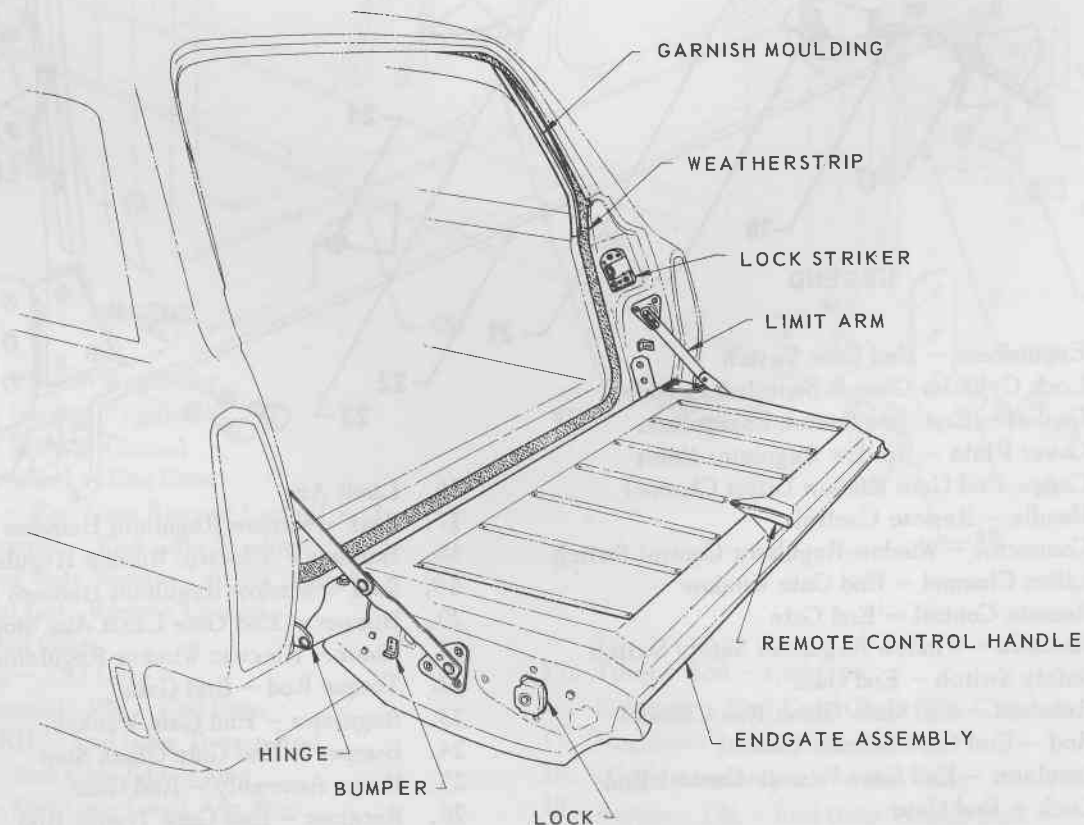


FIG. 6 - 3
REAR END - STATION SEDAN

Drill a 1/8 in. dia. hole through regulator sector and back-plate - DO NOT drill the hole closer than 1/2 in. to edge of sector back-plate. Install a pan head self tapping screw (10-12 x 5/8") in previously drilled 1/8 in. dia. hole to lock regulator sector gear to retain counter-balance spring tension.

NOTE: For servicing end gate electrically operated window regulator motor, refer Volume 5, 'HQ' Electrical Service Manual.

LOCK ASSEMBLY

Models - Station Sedan

Removal

1. Open end gate and remove wear strips and inner trim panel (refer page 6 - 7).
2. Raise and support end gate window.
3. Remove lower glass run channel on side from which lock is to be removed.
4. Remove screws securing lock to side of end gate (see Fig. 6 - 1 or 6 - 2).
5. Disengage lock from remote control rod and remove lock.

Installation

1. Ensure frictional surfaces of lock are adequately lubricated with zinc oxide grease or light oil.
2. Apply caulking compound around face of lock frame and rotary bolt prior to reversing removal operations.

LOCK STRIKER

Models - Station Sedan

Removal

1. Pencil scribe around striker assembly on lock pillar to facilitate installation.
2. Remove screws securing striker assembly to rear end aperture pillar (see Fig. 6 - 4).

Installation

Apply a ribbon of caulking compound around inner face of striker assembly and screw attaching holes prior to reversing removal operations.

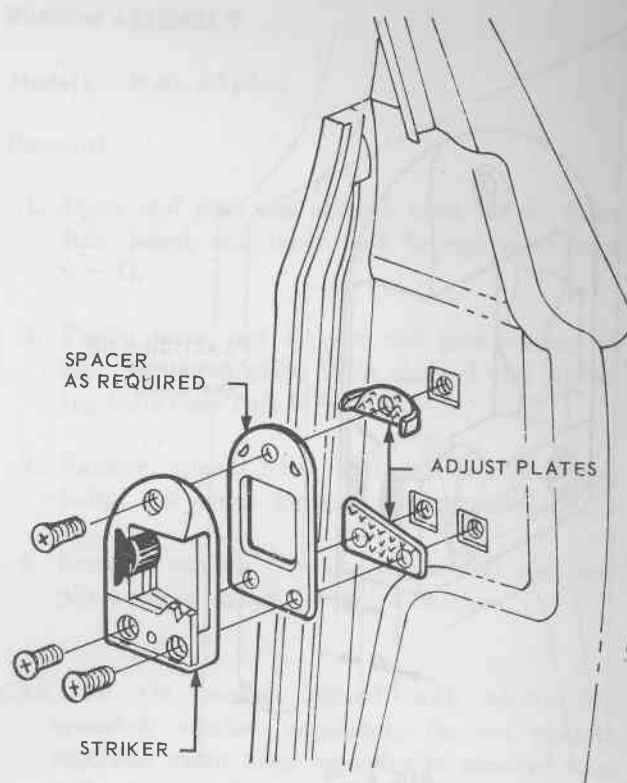


FIG. 6 - 4
LOCK STRIKER ASSEMBLY

Adjustment

1. To adjust striker horizontally or vertically, loosen screws securing striker assembly to rear body aperture pillar, move striker to the desired location, then tighten attaching screws.
2. To adjust striker away from rear body aperture pillar and to ensure correct engagement of striker and end gate lock, emergency spacers should be installed between striker and lock pillar. The end gate should be correctly aligned with rear body aperture before checking end gate lock spacer requirements. To determine if end gate lock striker emergency spacers are required, apply plasticine or caulking compound in behind the tooth plate where the rotary lock housing engages, then close end gate to form an impression in the plasticine or caulking compound as shown in Fig. 6-5. When dimension 'A' in Fig. 6-5, from inside face of striker tooth plate to outside of lock housing is less than 11/32 in., install emergency spacers in accordance with the following table:-

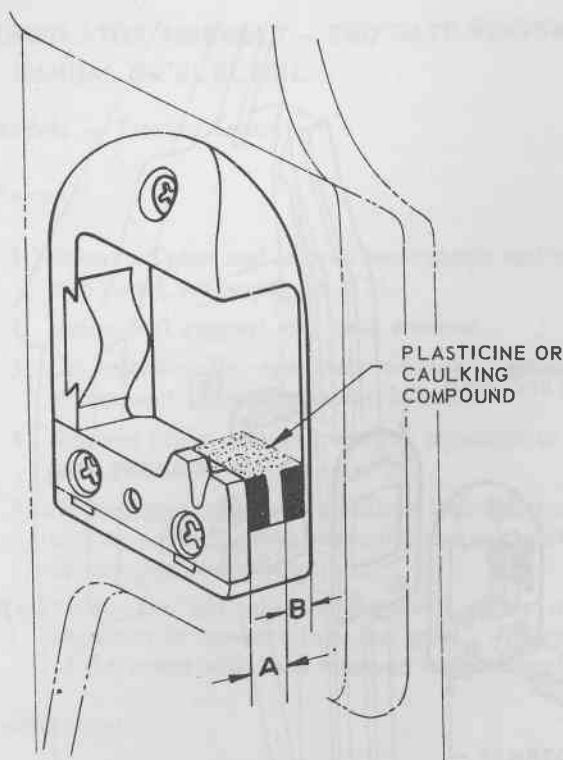


FIG. 6 - 5

LOCK STRIKER ADJUSTMENT CHECK

Dimension 'A'	No. & Size of Spacers Required
$1\frac{1}{32}$ " to $\frac{9}{32}$ "	1 - $\frac{1}{16}$ "
$\frac{9}{32}$ " to $\frac{7}{32}$ "	1 - $\frac{1}{8}$ "
$\frac{7}{32}$ " to $\frac{5}{32}$ "	1 - $\frac{1}{8}$ "
$\frac{5}{32}$ " to $\frac{3}{32}$ "	2 - $\frac{1}{8}$ "
	Total $\frac{3}{16}$ "
	Total $\frac{1}{4}$ "

Dimension 'B' from centre of lock housing to inside face of striker should not be less than $\frac{1}{8}$ in.

LIMIT ARM

Models - Station Sedan

Removal

1. With end gate open, provide support for side from which limit arm is to be removed.
2. Remove screws securing limit arm to end gate and bolts securing limit arm to rear end aperture pillar (see Fig. 6 - 1 or 6 - 2).

Installation

Apply caulking compound around screw and bolt attaching holes in end gate side and rear body aperture pillar, prior to reversing removal operations.

TORQUE ROD

Models - Station Sedan

Removal

1. Remove rear tonneau floor.
2. Remove rear bumper assembly (refer pages 14-2, 14-3 or 14-4).
3. Position end gate vertically to relieve tension from torque rod, then remove retainer securing torque rod to body back panel lower. (see Fig. 6 - 1 or 6 - 2).
4. Remove wear strips and inner trim panel (refer page 6 - 7).
5. Raise and support end gate window.
6. Remove screws securing torque rod retainer to end gate, then remove torque rod.

Installation

Apply caulking compound around screw and bolt attaching holes in body back panel lower and in end gate prior to reversing removal operations.

END GATE ASSEMBLY

Models - Station Sedan

Removal

1. Remove rear tonneau floor.
2. Remove rear bumper assembly (refer pages 14-2, 14-3 or 14-4).
3. Position end gate vertically to relieve tension from torque rod, then remove retainer securing torque rod to body back panel lower. (see Figs. 6 - 1 or 6 - 2).
4. Fully open and support end gate.
5. Remove screws and bolts securing hinges and limit arms to end gate, then remove end gate.

NOTE: On end gate exercising the optional electric window regulator, disconnect wiring harness inside spare wheel compartment, remove wiring sleeve from body back panel lower and remove harness.

Installation

Apply plastic sealer between hinge and limit arm to end gate mounting surfaces prior to reversing removal operations.

NOTE: On end gates exercising the optional electric window regulator, ensure that end gate wiring harness sleeve is effectively bonded to body back panel lower with neoprene cement.

Adjustment

Horizontal and/or vertical adjustment of the end gate can be achieved by:

1. Loosen end gate hinge to body attaching bolts.
2. Position end gate in the desired location.
3. Tighten end gate hinge to body attaching bolts.

CAUTION: Any end gate adjustments necessitate correct radial relationship between end gate window and upper and lower glass run channels. This can require adjustment of end gate striker plate and/or hinges. Incorrect adjustment will result in stiff end gate window operation and subsequent damage to run channels.

HINGE ASSEMBLY

Models - Station Sedan

Removal

1. Open and support end gate on side from which hinge is to be removed.
2. Pencil scribe around hinge assembly to facilitate installation.
3. Remove hinge to body and hinge to end gate attaching screws and bolts (see Fig. 6 - 1 or 6 - 2) then remove hinge

Installation

Apply plastic sealer between mating surfaces of hinge to body and hinge to end gate prior to reversing removal operations.

WINDOW ASSEMBLY

Models - Station Sedan

Removal

1. Open end gate and remove wear strips, inner trim panel and inner belt lacing (refer page 6 - 1).
2. Partly raise and support end gate window to gain access to glass lifter channel cam attaching bolts (see Fig. 6 - 1 or 6 - 2).
3. Remove glass lifter channel cam attaching bolts and cams from lifter channel.
4. Remove window through top of end gate and place on a clean protected surface.

CAUTION: On models fitted with electrically operated window regulator, do not operate regulator motor after regulator is removed from end gate. Operation of the motor with load removed may damage the unit.

Installation

Lubricate regulator sector teeth with zinc oxide grease or light oil prior to reversing removal operations.

WEAR STRIPS AND TRIM PANEL INNER

Models - Station Sedan

Removal

1. Open end gate and remove screws securing wear strips and trim panel to end gate inner panel.

Installation

1. Ensure that inner trim panel to end gate inner panel seal is seating correctly and apply caulking compound around screw attaching holes prior to reversing removal operations.

HANDLE - WINDOW REGULATOR**Models - Station Sedan****Removal**

1. Open gate and remove wear strips and inner trim panel (refer preceeding instructions).
2. Raise and support end gate window.
3. From inside end gate, remove nuts securing outside handle assembly to outer panel, then remove assembly (see Fig. 6 - 1 or 6 - 2).

Installation

1. Ensure that handle assembly gasket effectively seals handle aperture in outer panel.
2. Check operation of regulator handle prior to replacing inner trim panel.

Disassembly

1. Remove clutch retaining spring and slide clutch off shaft of handle driver (see Fig. 6 - 6).
2. Using a snap ring removal tool, remove handle retaining spring and spring washer from shaft of handle driver and remove handle assembly from escutcheon.
3. Remove screws securing handle driver hinge pin to handle and knob assembly.

Assembly

Clean and lubricate frictional surfaces of handle assembly with zinc oxide grease or light oil prior to reversing removal operations.

LOCK CYLINDER AND CAP ASSEMBLY**Models - Station Sedan****Removal**

1. Remove window regulator handle (refer preceeding instructions).
2. Remove clutch retaining spring and slide clutch off shaft of handle driver (see Fig. 6 - 6).
3. Insert key in lock cylinder and turn key to lock position.
4. Depress locking pawl, turn key (lock cylinder) approximately a quarter turn counter-clockwise and remove lock cylinder assembly, locking pawl and spring from handle driver.

Installation

Clean and lubricate frictional surfaces of clutch, escutcheon and handle driver sparingly with zinc oxide grease or light oil prior to reversing removal operations.

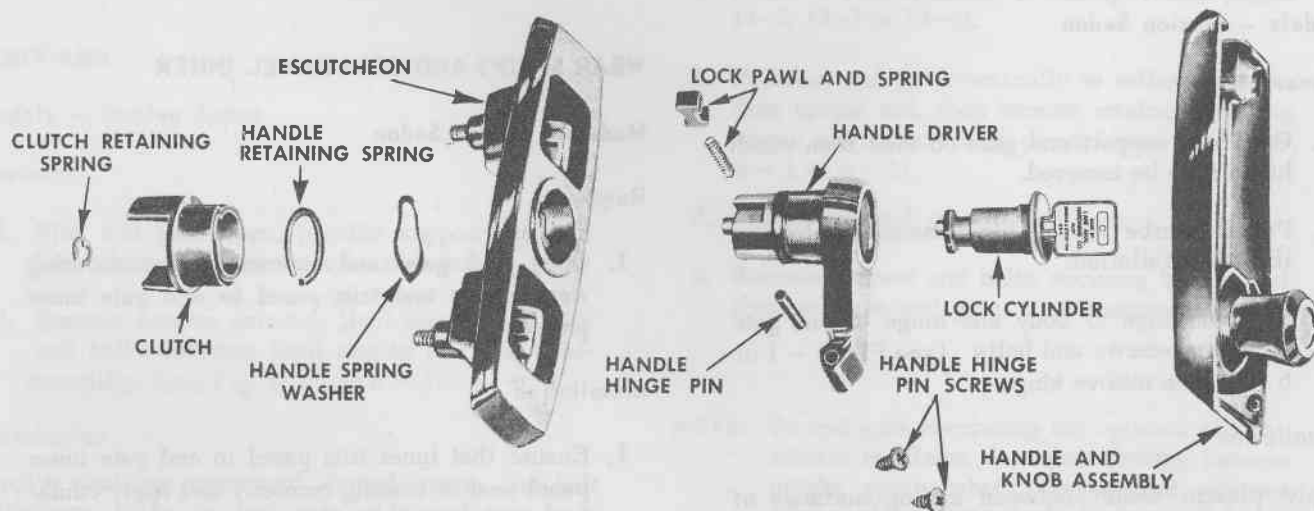


FIG. 6 - 6

END GATE WINDOW REGULATOR HANDLE ASSEMBLY

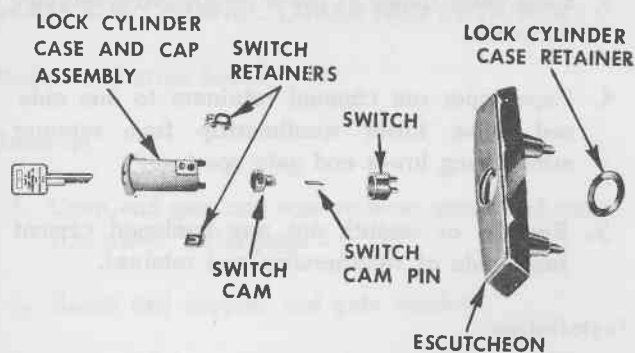


FIG. 6 - 7
END GATE LOCK CYLINDER and SWITCH ASSEMBLY

ELECTRIC SWITCH & ESCUTCHEON ASSEMBLY

Models - Optional on Kingswood & Premier
Station Sedans

Removal

1. Open end gate and remove wear strips and inner trim panel (refer page 6 - 7).
2. Raise and support end gate window.

NOTE: To operate window with end gate open, it is necessary to depress arm of safety switch adjacent to LH end gate lock. (Fig. 6 - 2).

3. Remove nuts securing switch escutcheon to end gate outer panel.
4. Disconnect harness connector from switch and remove escutcheon.

Installation

1. Ensure that escutcheon assembly gasket effectively seals escutcheon aperture in outer panel.
2. Check operation of switch prior to replacing inner trim panel.

Disassembly

1. Disengage lock cylinder case retainer (see Fig. 6 - 7), and remove lock cylinder and switch assembly from escutcheon.
2. Using a pointed tool inserted through hole in lock cylinder case, depress tab of both switch retainers and remove retainers and switch.

3. Using suitable pliers, grasp pin of switch cam firmly and pull switch cam straight out from lock cylinder.

NOTE: Pin is pressed into lock cylinder and may require a firm pull to release.

Assembly

1. Insert key in lock cylinder and turn key to "off" position (straight up and down).
2. Insert switch into lock cylinder, ensuring that ends of spring, housed in base of switch cam, engage in recess opposite major slot in lock cylinder housing.
3. Holding switch cam in position, check operation of key (lock cylinder). If lock cylinder operates correctly, apply a small amount of cement on serrated end of switch cam pin to ensure secure retention of pin to lock cylinder, then install pin. Press or tap pin in until shoulder of pin is flush against switch cam.
4. Install switch into lock cylinder case.
5. Position lock cylinder and switch assembly into escutcheon and engage retainer.

NOTE: The lock cylinder and switch assembly is serviced as a complete unit.

SAFETY SWITCH - ELECTRICALLY OPERATED END GATE WINDOW REGULATOR

Models - Optional on Kingswood & Premier
Station Sedans

Removal

1. Open end gate and remove wear strips and inner trim panel (refer page 6 - 7).
2. Raise and support end gate window.
3. Disconnect switch harness from inside end gate (see Fig. 6 - 2).
4. Remove screws securing safety switch to LH side of end gate and remove switch.

Installation

1. Apply PVC adhesive over entire plastic surface of switch back.
2. Apply mastic sealer under lip of switch actuating lever rubber seal prior to reversing removal operations.

INTERIOR HANDLE AND REMOTE CONTROL

Models - Station Sedan

Removal

1. Open end gate and remove wear strips and inner trim panel (refer page 6 - 7).
2. Remove screw attached remote control handle from end gate inner panel.
3. Raise and support end gate window.
4. Remove screws securing remote control to inside of inner panel (see Fig. 6 - 1 or 6 - 2).
5. Disengage anti rattle clip and control rods from remote control and remove control.

Installation

1. Clean and lubricate frictional surfaces of remote control.
2. Apply mastic sealer between mating surfaces of remote control and end gate inner panel and around screw attaching holes prior to reversing removal operations.

WEATHERSTRIP - LOWER END GATE APERTURE

Models - Station Sedan

Removal

1. Open end gate and ease out lower ends of glass run channel upper, which are attached to upper run channel retainer with neoprene cement.
2. Remove screws securing lower section of upper glass run channel retainer to upper aperture.

3. Ease outer flange of lower weatherstrip retainer outwards.
4. Ease upper run channel retainers to one side and ease lower weatherstrip from retainer surrounding lower end gate aperture.
5. Remove or smooth out any hardened cement from ends of weatherstrip and retainer.

Installation

Reverse removal operations, installing lower ends of glass run channel upper to retainer with neoprene cement.

WEATHERSTRIP OUTER - END GATE BELT

Models - Station Sedan

Removal

1. Open end gate and remove screws securing ends of belt moulding to end gate.
2. Close end gate and apply masking tape adjacent to belt moulding to protect paint finish.
3. Using a wide bladed screwdriver, carefully prise moulding from end gate.
4. Remove screw attached belt moulding retaining clips from end gate.
5. Remove belt weatherstrip outer.

Installation

When reversing removal operations, ensure that one edge of belt moulding is located completely over retaining clips prior to lightly tapping moulding into position.

NOTE: The finishing lace attached to upper flange of end gate inner panel is a press-on attachment.

GLASS RUN CHANNEL LOWER AND RETAINER**Models - Station Sedan****Removal**

1. Open end gate and remove wear strips and inner trim panel (refer page 6 - 7).
2. Raise and support end gate window.
3. Remove bolts securing glass run channel lower retainer assembly to side of end gate inner panel and remove assembly (see Fig. 6 - 1 or 6 - 2).
4. Carefully ease run channel lower, which is attached to retainer with neoprene cement, from retainer.
5. Remove or smooth out any hardened cement from back of run channel and from inside retainer.

Installation

1. Attach entire length of glass run channel lower to retainer with neoprene cement.
2. Apply caulking compound around lower glass run channel retainer assembly to end gate attaching holes prior to reversing removal operations.

GLASS RUN CHANNEL UPPER AND RETAINER**Models - Station Sedan****Removal**

1. Open end gate and remove inner garnish mouldings from end gate upper aperture (see Fig. 6 - 8).
2. Carefully ease out upper glass run channel, the lower ends of which are attached to the retainer with neoprene cement for a distance of 7 inches.
3. Remove screw attached upper glass run channel retainer from end gate upper aperture.
4. Remove or smooth out any hardened cement or plastic sealer from upper glass run channel or retainer.

Installation

1. Install upper glass run channel retainer to upper end gate aperture.
2. Apply plastic sealer between leading outer side of retainer and upper aperture for entire length of retainer (see Fig. 6 - 8).
3. Install upper glass run channel into retainer, cementing both ends of channel to retainer for a distance of 7 inches with neoprene cement.

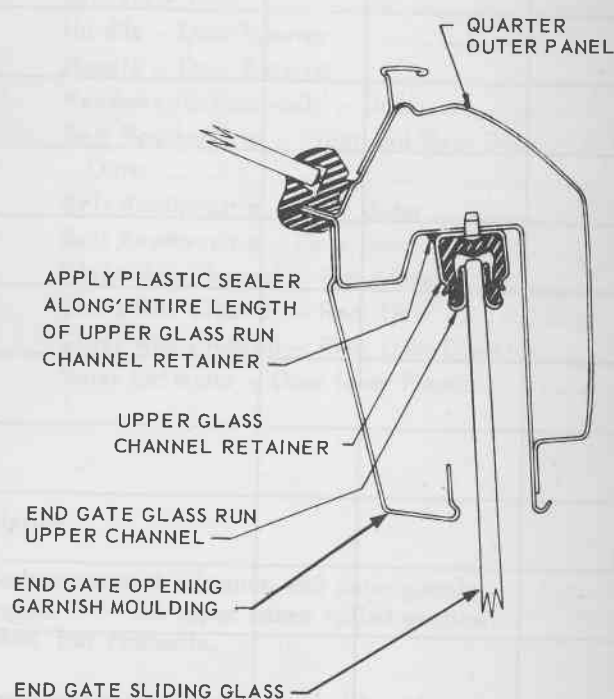


FIG. 6 - 8
UPPER GLASS RUN CHANNEL
AND RETAINER INSTALLATION

NOTES AND BULLETIN REFERENCES

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SECTION 7

DOORS

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Description

All doors of 'HQ' Sedans and Station Sedans consist of inner and outer panels, welded together at surrounding door flanges. An upper frame rolled section reinforcement provides retention for glass run channels.

Doors on 'HQ' Coupes consist of half inner and outer panels, welded together at leading, bottom and trailing door flanges. All doors feature separate hinge pillar facings and floating anchor plates for upper and lower hinge mountings. Concealed door hinges mounted on leading faces of the doors are steel stampings, which include door check and hold open devices on the front door upper hinge and the rear door lower hinge.

Double arm window regulators operate door sliding windows in guides and cams attached to door inner panels. "Lift bar" type outside door handles and lever type remote control handles operate fork type door locks in conjunction with a free wheeling door lock bolt striker.

Door snib rods control the locking of door locks from inside the vehicle. A square headed key operates the five biting depth lock cylinders installed on front doors.

The door weatherstrip incorporates wire clips which retain the weatherstrip in holes located around the side of the door inner panel.

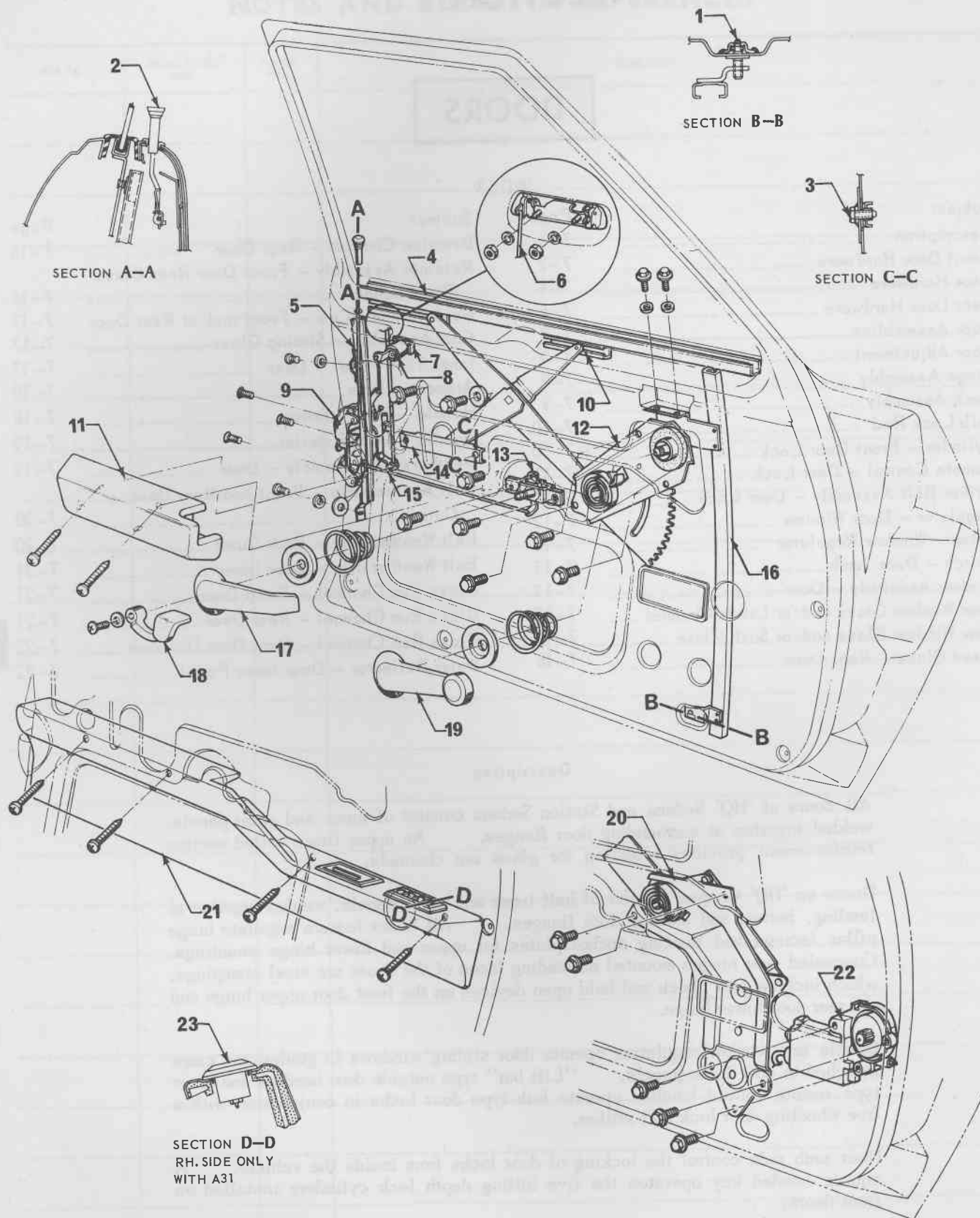
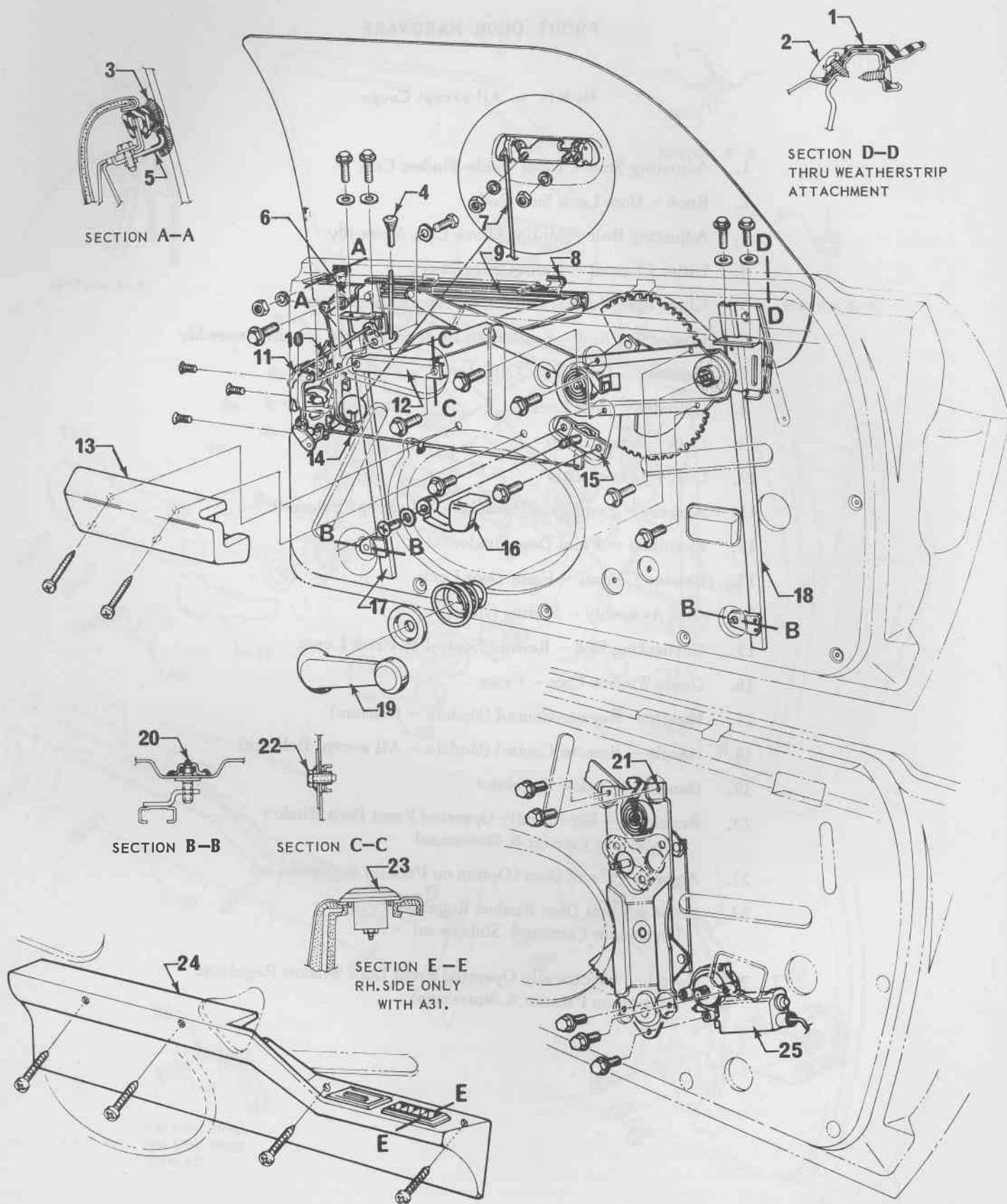


FIG. 7 - 1
FRONT DOOR HARDWARE INSTALLATION
MODELS - ALL except COUPE

FRONT DOOR HARDWARE

Models - All except Coupe

1. Adjusting Stud - Front Guide Window Cam
2. Knob - Door Lock Snib Rod
3. Adjusting Bolt - Sliding Glass Cam Assembly
4. Lifter Channel - Front Door Glass
5. Glass Run Channel & Retainer Assembly - Rear
6. Connecting Rod - Front Door Lock to Outside Handle Assembly
7. Retainer - Door Lock Cylinder
8. Cylinder - Door Lock
9. Lock - Front Door
10. Cam - Glass Lifter
11. Armrest - Front Door (Models - All except Belmont)
12. Regulator - Front Door Window
13. Remote Control - Front Door Lock
14. Cam Assembly - Sliding Glass
15. Connecting Rod - Remote Control to Pivot Lever
16. Guide Window Cam - Front
17. Handle - Remote Control (Models - Belmont)
18. Handle - Remote Control (Models - All except Belmont)
19. Handle - Window Regulator
20. Regulator - Electrically Operated Front Door Window
(Option on Premier & Statesman)
21. Armrest - Front Door (Option on Premier & Statesman)
22. Motor - Front Door Window Regulator
(Option on Premier & Statesman)
23. Switch - Electrically Operated Front Door Window Regulator
(Option on Premier & Statesman)



DOOR HARDWARE INSTALLATION

Models - Coupe

1. Weatherstrip - Door Belt Outer
2. Moulding - Door Belt
3. Weatherstrip - Door Belt Inner
4. Knob - Door Lock Snib Rod
5. Strip Assembly - Door Window Anti-Rattle
6. Cylinder - Door Lock
7. Connecting Rod - Door Lock to Outside Handle Assembly
8. Strip Assembly - Door Window Anti-Rattle Front
9. Lifter Channel - Door Glass
10. Connecting Rod - Door Lock to Inside Locking Lever
11. Lock - Front Door
12. Cam Assembly - Sliding Glass
13. Armrest - Door
14. Connecting Rod - Door Lock to Remote Control
15. Remote Control - Door Lock
16. Handle - Remote Control
17. Guide Window Cam - Rear
18. Guide Window Cam - Front
19. Handle - Window Regulator
20. Adjusting Stud - Front and Rear Guide Window Cams
21. Regulator - Electrically Operated Door Window
(Option on GTS Monaro & Luxury Sports Coupe)
22. Adjusting Stud - Sliding Glass Cam Assembly
23. Switch - Electrically Operated Door Window Regulator
(Option on GTS Monaro & Luxury Sports Coupe)
24. Armrest - Door
(Option on GTS Monaro & Luxury Sports Coupe)
25. Motor - Door Window Regulator
(Option on GTS Monaro & Luxury Sports Coupe)

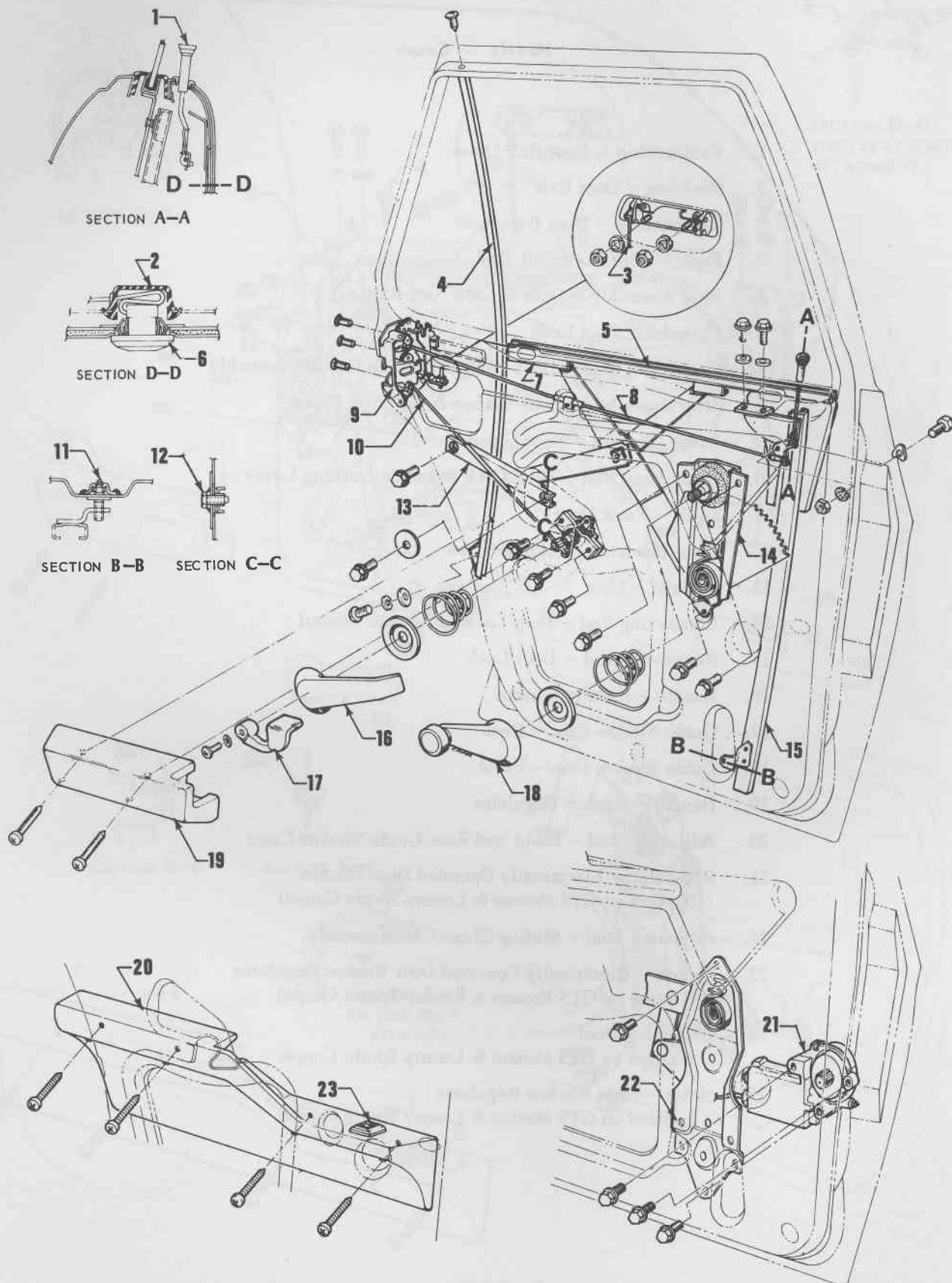


FIG. 7 - 3
REAR DOOR HARDWARE INSTALLATION
MODELS - ALL except COUPE

REAR DOOR HARDWARE INSTALLATION

Models - All except Coupe

1. Knob - Door Lock Snib Rod
2. Seal - Electrically Operated Rear Door Window Regulator Switch
(Option on Premier & Statesman)
3. Connecting Rod - Rear Door Lock to Outside Handle Assembly
4. Channel Assembly - Rear Door Division
5. Lifter Channel - Rear Door Glass
6. Switch - Electrically Operated Rear Door Window Regulator
(Option on Premier & Statesman)
7. Cam - Glass Lifter
8. Connecting Rod - Rear Door Lock to Pivot Lever
9. Lock - Rear Door
10. Connecting Rod - Rear Door Lock to Remote Control
11. Adjusting Stud - Front Guide Window Cam
12. Adjusting Bolt - Sliding Glass Cam Assembly
13. Cam Assembly - Sliding Glass
14. Regulator - Rear Door Window
15. Guide Window Cam - Front
16. Handle - Remote Control (Models - Belmont, Kingswood and Station Sedan)
17. Handle - Remote Control (Models - Premier & Statesman Sedan)
18. Handle - Window Regulator
19. Armrest - Rear Door (Models - Premier & Statesman Sedan)
20. Armrest - Rear Door
(Option on Premier & Statesman Sedan)
21. Motor - Rear Door Window Regulator
(Option on Premier & Statesman)
22. Regulator - Electrically Operated Rear Door Window
(Option on Premier & Statesman)
23. Switch - Electrically Operated Rear Door Window Regulator
(Option on Premier & Statesman Sedan)

FRONT and/or REAR DOOR ASSEMBLY**Models - All****Removal**

1. With door open, pencil scribe hinge locations on pillar to facilitate installation.
2. With an assistant supporting door, remove bolts securing hinge to pillar (see Fig. 7 - 4 or 7 - 5) and remove door.

Installation

1. Apply plastic sealer on hinge to pillar attaching face.
2. With an assistant supporting door, install hinge to pillar attaching bolts loosely, prior to aligning hinges within pencil scribe marks on pillars and torquing bolts to 14 - 17 ft. lbs.

NOTE: Prior to removing doors exercising the optional electrically operated window regulator, the following operations must be performed:

1. Remove snib rod knob.
2. Remove screws securing armrest on all doors except rear doors of station sedan.
3. Using a wide bladed screwdriver, carefully prise switch assembly out of armrest, or on rear doors of station sedan, rear door inner trim panel.
4. On RH front and rear door armrest mounted regulator switches, remove nut securing switch escutcheon to switch base and on all switches, prise switch escutcheon off switch base.

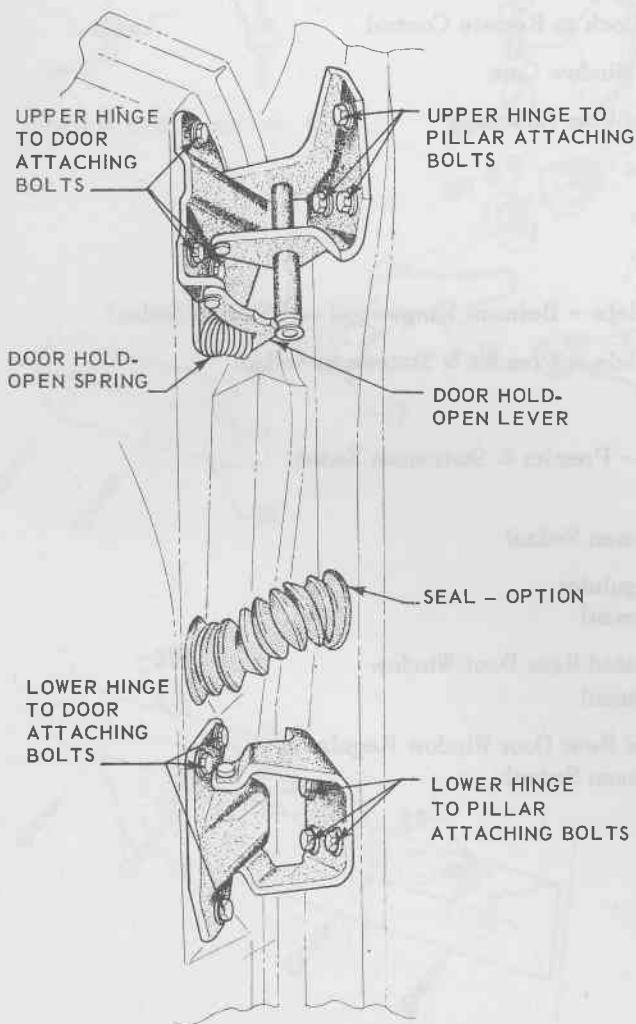


FIG. 7 - 4
FRONT DOOR HINGES

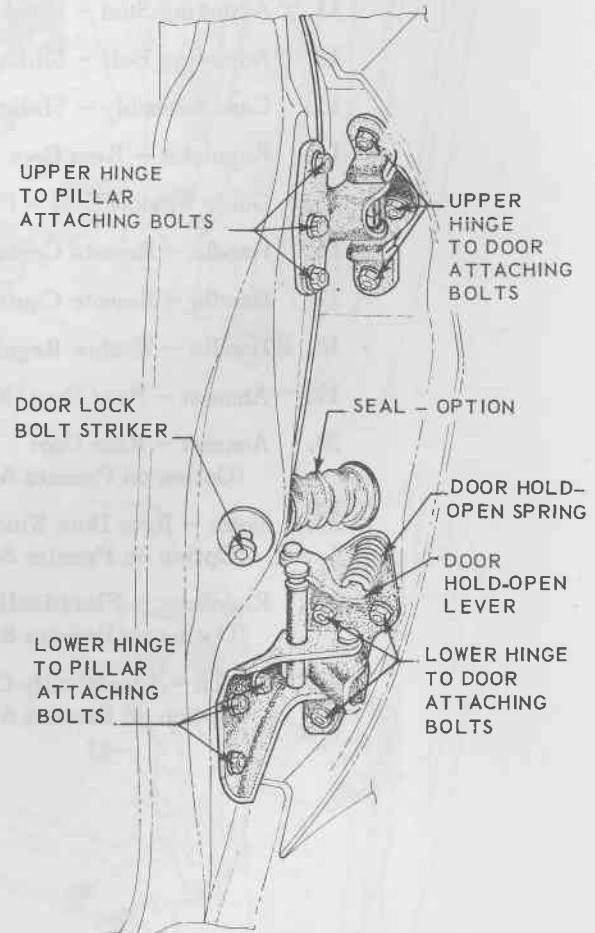


FIG. 7 - 5
REAR DOOR HINGES
MODELS - SEDAN & STATION SEDAN

5. Remove door interior handles, inner trim panel and door inner panel water deflectors (refer Page 7 - 1).
6. Ease off end of window regulator harness seal (see Fig. 7 - 4 or 7 - 5) which is attached to leading face of door with Neoprene cement.
7. Disconnect regulator harness connector and thread switch base and motor and switch harnesses through harness aperture on front face of door.

Installation

Reverse removal operations, using Neoprene cement to attach window regulator harness seal to leading face of door.

Door Adjustment

In making door adjustments, attention should be given to uniform spacing and alignment between door edges and surrounding parts. Oversize holes in pillars and doors in addition to floating anchor plates provide horizontal, vertical and in and out door adjustment.

To check door for misalignment and then adjust, proceed as follows:

1. Pencil scribe around lock striker to facilitate installation.
2. Using a 5/16" Allen Key in tool recess in head of striker bolt (see Fig. 7 - 5) remove striker, allowing door to hang freely.
3. If the check reveals horizontal or vertical misalignment, support door, loosen hinge to pillar attaching bolts (see Fig. 7 - 4 or 7 - 5) move door to the desired position, then retighten bolts.
4. If the check reveals an in or out misalignment, support door, loosen hinge to door attaching bolts, move door to the desired position, then retighten bolts.

HINGE ASSEMBLY - DOORS

Models - All

Removal

1. With door open, pencil scribe around hinge to pillar and hinge to door, to facilitate installation.
2. With an assistant supporting door, remove bolts securing hinge to door and pillar, then remove hinge.

Installation

1. Apply plastic sealer on hinge to pillar and hinge to door attaching faces.
2. With an assistant supporting door, align hinge within pencil scribe marks on pillar and door, then install bolts, torquing them to 14 - 17 ft. lbs.

LOCK ASSEMBLY - DOORS

Models - All

Removal

1. With door open and window raised, remove snib rod knob.
2. Remove armrest (where fitted) disconnect electrically operated window regulator switch (where fitted) remove door interior handles, inner trim panel and door inner panel water deflectors (refer Page 7 - 1).
3. Remove screws securing lock to rear face of door.
4. From inside door, disengage remote control, snib lock knob, outside handle and on front doors, lock cylinder pawl connecting rods from lock (see Fig. 7 - 1, 7 - 2 or 7 - 3) and remove lock through door inner panel aperture.

Installation

1. Ensure frictional surfaces of lock are adequately lubricated with zinc oxide grease or light oil.
2. Apply caulking compound around edge of outer face of lock and around screw attaching holes to effect a water tight seal.
3. After installation of lock, check operation of all lock connecting rods prior to reversing removal operations.

NOTE: Figs. 7 - 6 and 7 - 7 identify the various parts which make up the front and rear door locks.

SNIB LOCK ROD ASSEMBLY

Models - All

Removal

1. With door open and window raised, remove snib rod knob.
2. Remove armrest (where fitted) disconnect electrically operated window regulator switch (where fitted) remove door interior handles, inner trim panel and door inner panel water deflector (refer Page 7 - 1).
3. On all doors except rear doors, disengage lock end of snib rod from lock.

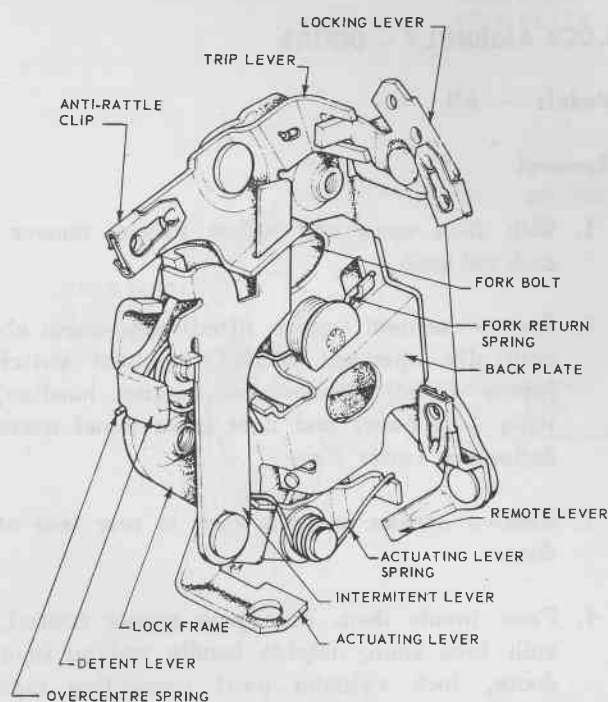


FIG. 7 - 6
FRONT DOOR LOCK

4. On coupe and rear doors, remove bolt securing inside locking lever to door inner panel (see Figs. 7-2 and 7-3), disengage locking lever to door lock connecting rod, then remove locking lever.

Installation

Reverse removal operations, ensuring that on rear door, the bolt securing locking lever to door inner panel is adequately sealed.

CYLINDER - FRONT DOOR LOCK

Models - All

Removal

1. With door open and window raised, remove snib rod knob.
2. Remove armrest (where fitted) disconnect electrically operated window regulator switch (where fitted) remove door interior handles, inner trim panel and door inner panel water deflectors (refer Page 7 - 1).
3. From inside door, disengage spring clip securing cylinder to door outer panel (see Fig. 7 - 1 or 7 - 2).

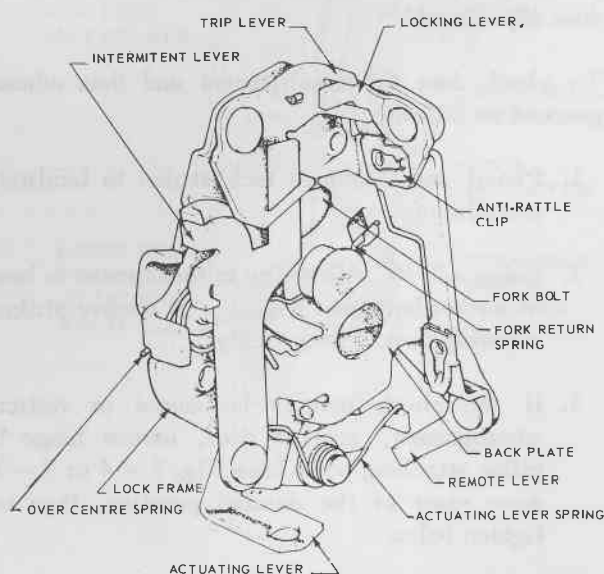


FIG. 7 - 7
REAR DOOR LOCK

4. Disengage lock cylinder pawl from lock connecting rod and remove cylinder assembly from door outer panel.

Installation

Install and check operation of door lock cylinder prior to reversing removal operations.

Disassembly - Front Door Lock Cylinder

1. With lock cylinder assembly removed from door, prise off clip securing pawl to lock cylinder (see Fig. 7 - 8).
2. Remove lock cylinder housing scalp by prising folded over edge of scalp from lock cylinder assembly, then removing lock cylinder from housing.

CAUTION: When removing scalp, hold down spring loaded cylinder cap.

Reassembly

Reverse disassembly operations.

REMOTE CONTROL - DOOR LOCK

Models - All

Removal

1. With door open and window raised, remove snib rod knob.
2. Remove armrest (where fitted) and disconnect electrically operated window regulator switch (where fitted) remove door interior handles, inner trim panel and door inner panel water deflector (refer Page 7 - 1).
3. Remove screws securing remote control to door inner panel (see Figs. 7 - 1, 7 - 2 or 7 - 3) and from inside door, disengage control from remote control rod, then remove control through aperture in door inner panel.

Installation

Install and check operation of remote control prior to adequately sealing remote control to door inner panel attaching screw, then reverse removal operations.

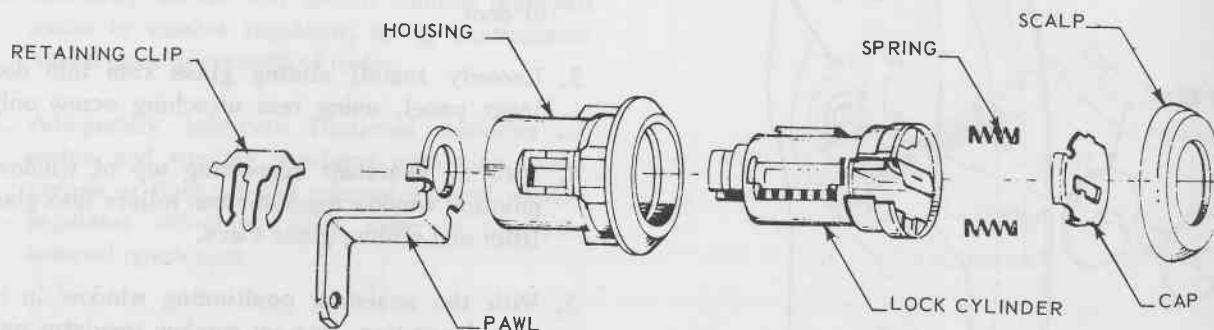


FIG. 7 - 8
CYLINDER - FRONT DOOR LOCK

STRIKER BOLT ASSEMBLY - DOOR LOCK

Models - All

Removal

1. Pencil scribe position of lock striker bolt assembly on body lock pillar to facilitate installation.
2. Using a 5/16" Allen key in tool recess in head of striker bolt, remove striker bolt assembly and spacer (see Fig. 7 - 9).

Installation

Reverse removal operations

IMPORTANT: Whenever a door has been replaced or realigned, do not completely close door until a visual check is made to determine if lock fork bolt will correctly engage striker.

Adjustment

To adjust striker horizontally or vertically, loosen striker bolt and position striker assembly in the desired location.

Forward or rearward adjustment of striker is achieved by addition or deletion of spacers between striker bolt assembly and lock pillar as required.

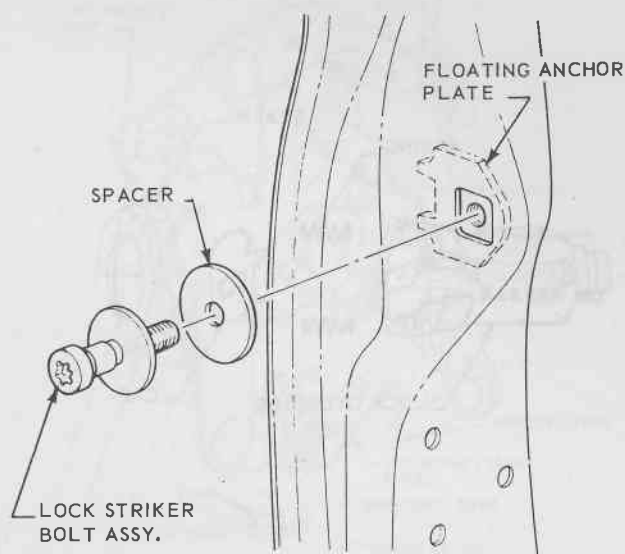


FIG. 7 - 9

DOOR LOCK STRIKER BOLT INSTALLATION

REGULATOR - DOOR WINDOW

Models - All

Removal

1. With door open and window supported in the raised position, remove snib rod knob.
2. Remove armrest (where fitted) and disconnect electrically operated window regulator switch (where fitted) remove door interior handles, inner trim panel and door inner panel water deflector (refer Page 7 - 1).
3. Remove nuts securing sliding glass cam assembly to door inner panel (see Fig. 7 - 1, 7 - 2 or 7 - 3) then remove cam assembly.
4. Remove bolts securing window regulator assembly to door inner panel and from inside door, disengage regulator arm rollers from glass lifter cams and remove regulator assembly through lower aperture in door inner panel.
5. On electrically operated window regulators, disengage window regulator harness connector from motor.

Installation

1. Ensure that frictional surfaces of window regulator assembly, sliding glass and glass lifter cams are adequately lubricated with zinc oxide grease or light oil.
2. Position window regulator assembly in bottom of door.
3. Loosely install sliding glass cam into door inner panel, using rear attaching screw only.
4. With an assistant supporting top of window, position window regulator arm rollers into glass lifter and sliding glass cams.
5. With the assistant positioning window in its raised position, line up window regulator assembly and sliding glass cam to door inner panel attaching holes and install bolts and screws.

NOTE: Use washer markings in sealing compound around bolt and screw attaching holes as location guides when replacing door hardware.

6. On electrically operated window regulators, connect harness to window regulator motor.
7. Check operation of window regulator prior to adequately sealing window regulator assembly and sliding glass cam attaching bolts and screws, then reverse removal operations.

MOTOR - WINDOW REGULATOR

Models - Option on Premier & Statesman

Removal

1. Remove window regulator assembly (refer preceding instructions).
2. Measure distance between window regulator sector plate stop and end of cut-out in sector plate to facilitate installation.
3. Remove bolt securing window regulator motor to window regulator (see Figs. 7 - 1, 7 - 2 or 7 - 3) removing motor.

Installation

1. Correctly locate and fasten window regulator motor to window regulator, using measurement taken prior to removal of motor.
2. Adequately lubricate frictional surfaces of motor and window regulator with zinc oxide grease or light oil and adequately seal window regulator attaching bolts prior to reversing removal operations.

NOTE: For inspection, overhaul and testing of window regulator motor, refer Vol. 5 'HQ' Electrical Instruments and Gauges,

SWITCH - DOOR JAMB

Front Door - Models - All except Belmont

Rear Door - Models - Premier & Statesman

Removal

1. Disconnect battery ground strap.
2. Apply masking tape adjacent to jamb switch to protect paint finish.
3. Using a thin bladed screwdriver, carefully prise switch assembly from pillar.
4. Depress plunger and remove switch lead from base of plunger, disassembling jamb switch (see Fig. 7 - 10).

Installation

Reverse removal operations.

WINDOW ASSEMBLY - DOOR

Models - All

Removal

1. With door open and window lowered, remove door belt outer weatherstrip (refer Page 7-20).
2. Raise and support window and remove snib rod knob.

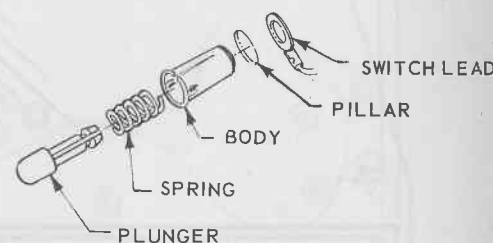


FIG. 7 - 10

DOOR JAMB SWITCH INSTALLATION
FRONT DOOR - MODELS - ALL except BELMONT
REAR DOOR - MODELS - PREMIER & STATESMAN

3. Remove armrest (where fitted) and disconnect electrically operated window regulator switch (where fitted) remove door interior handles, inner trim panel, door inner panel water deflectors and door window regulator assembly (refer Page 7 - 1).
4. On coupe doors, remove bolts securing window travel stops and window anti-rattle brackets to door inner panel, removing stops and brackets from inside door (see Fig. 7 - 2).
5. Remove bolts securing top of front and/or rear guide window cam to door inner panel (see Figs. 7 - 1, 7 - 2 or 7 - 3).
6. Turn front and/or rear guide window cam lower adjusting stud(s) anti-clockwise, positioning top of window inboard and lift window assembly out through top of door.

Installation

1. With an assistant supporting top of window, position window rollers in top of front, and on coupe door, rear guide window cams.
2. Loosely install bolts securing top of front and/or rear guide window cam to door inner panel (see Figs. 7 - 1, 7 - 2 or 7 - 3).
3. Install door window regulator assembly (refer Page 7 - 12).
4. With window in the raised position, tighten cam to door inner panel attaching bolts.

NOTE: Use washer markings in sealing compound around bolt and screw attaching holes as location guides when replacing door hardware.

5. Set adjusting stud(s) securing bottom of guide window cam(s) to door inner panel to effect smooth operation of door window assembly.

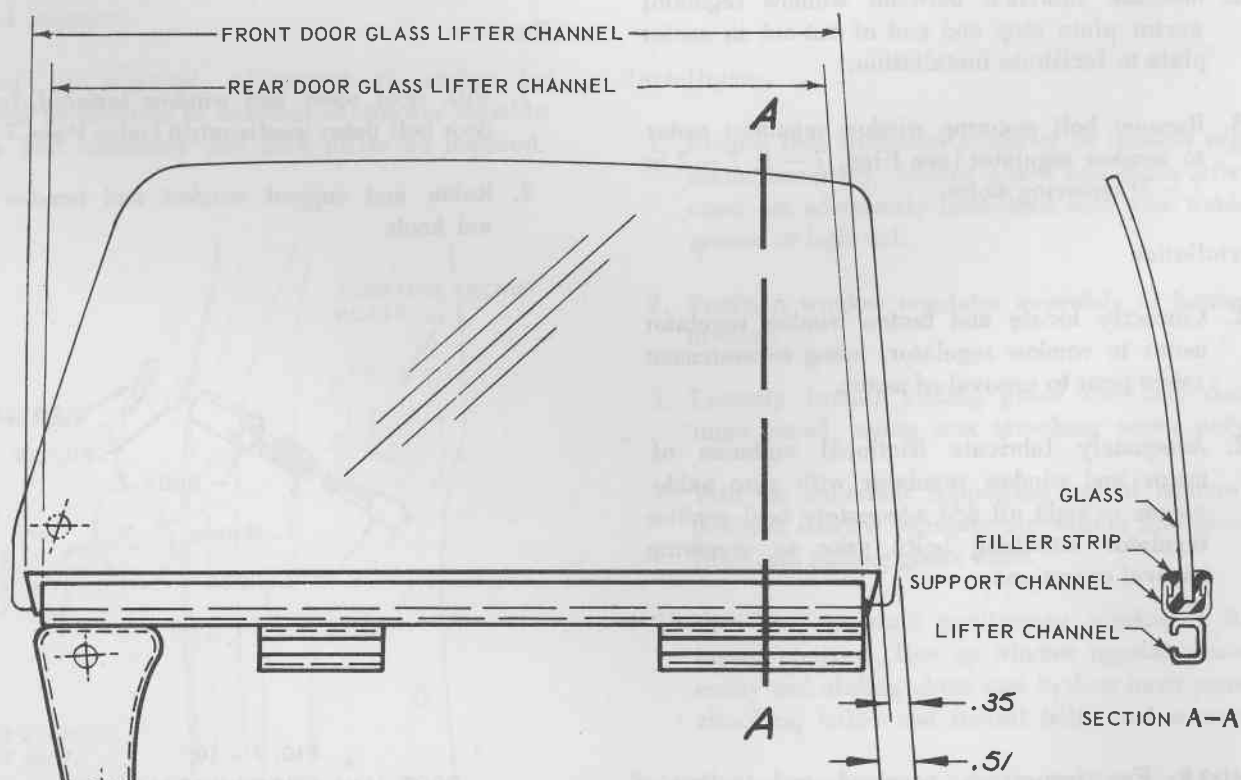


FIG. 7 - 11
FRONT & REAR DOOR GLASS ASSEMBLY
MODELS - SEDAN & STATION SEDAN

6. On coupe doors, install and set window travel stops and window anti-rattle brackets (see Fig. 7 - 2).
7. Adequately lubricate frictional surfaces of window guide and lifter cams with zinc oxide grease or light oil.
8. Check operation of window prior to adequately sealing window guide cam bolts and adjusting stud(s) then reverse removal operations.

Adjustment

Oversize holes in top and bottom of door inner panel together with an adjusting stud provide forward, rearward and in and out adjustment of guide window cam on all models except coupe.

Two adjusting studs on coupe doors provide a similar adjustment.

On coupe door, adjustable window travel stops govern height to which window can be raised. Adjustable window anti-rattle brackets assist in overcoming window vibration when the window is not fully raised.

DOOR WINDOW GLASS or LIFTER CHANNEL

Models - All except Coupe

Disassembly

1. Place window assembly on a clean protected surface.

2. Holding window with concave side uppermost carefully tap off support channel (see Section A-A, Fig. 7 - 11) by sliding a smooth head hammer across glass, against upper edge support channel.

CAUTION: Ensure that hammer head is smooth and free from burrs so as to prevent damage to glass.

3. When replacing broken glass, prise broken fragments from support channel.
4. Remove and discard support channel filler strip (see Section A-A, Fig. 7 - 11).
5. Ensure that support channel inner surfaces are clean and free from burrs, distortions, etc.

Assembly

1. Apply a thin film of light oil to inner surface of support channel.
2. Position glass on its top edge and place new filler strip evenly over bottom edge of glass.
3. With open side of lifter cams towards concave side of glass, position support channel, using dimensions illustrated in Fig. 7 - 11.
4. Using a rubber mallet, tap support channel onto glass.

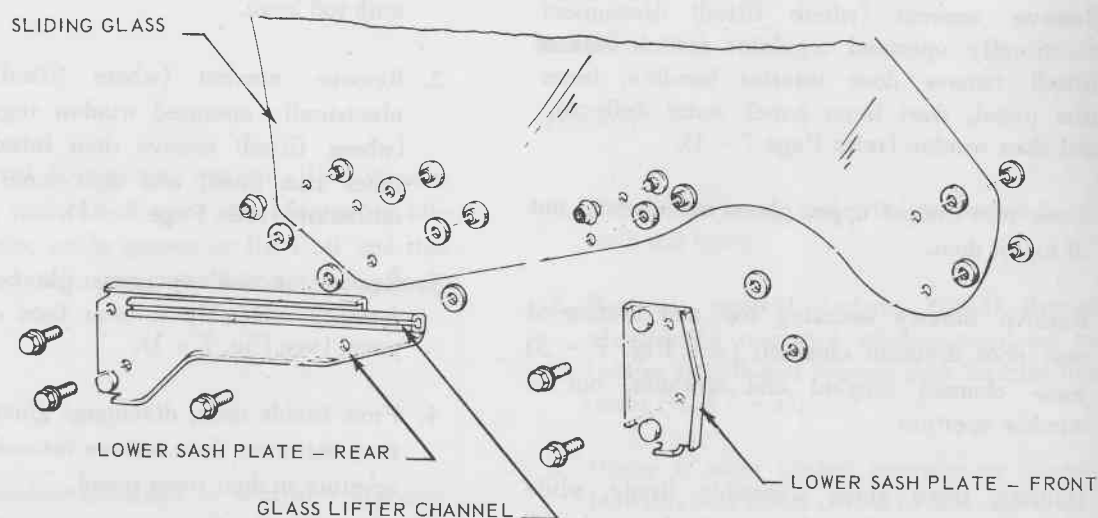


FIG. 7 - 12
DOOR GLASS ASSEMBLY
MODELS - COUPE

DOOR WINDOW GLASS or SASH PLATE

Models - Coupe

Disassembly

1. Place window assembly face up on a clean protected surface.
2. Using Tool No. 1A8, remove roller tee nuts and plastic bushings from bolts (see Fig. 7 - 12).
3. Lift glass off front and rear sash plate assemblies.
4. Prise rubber glass bearing fastener and cap off glass.

Assembly

Reverse to disassembly.

FIXED GLASS - REAR DOOR

Models - Sedan and Station Sedan

Removal

1. With door open and window raised, remove snib rod knob.
2. Remove armrest (where fitted) disconnect electrically operated regulator switch (where fitted) remove door interior handles, inner trim panel, door inner panel water deflector and door window (refer Page 7 - 1).
3. Ease rear end of upper glass run channel out of top of door.
4. Remove screws securing top and bottom of rear door division channel, (see Fig. 7 - 3) ease channel forward and upwards, out of window aperture.
5. Holding fixed glass assembly firmly, slide assembly forward and out of door window aperture.
6. Remove weatherstrip surrounding fixed glass.

Installation

Reverse removal operations.

DIVISION CHANNEL - REAR DOOR

Models - Sedan and Station Sedan

Removal and Installation

Refer preceding instructions.

Adjustment

To adjust top of door division channel forward or rearward, loosen screw securing top of division channel to top of door inner frame (see Fig. 7 - 3) move channel to desired location, then tighten screw. To adjust lower end of division channel in or out, loosen screw securing lower end of division channel to rear lower section of door inner panel, move channel to desired location, then tighten screw.

RETAINER ASSEMBLY - FRONT DOOR REAR GLASS RUN CHANNEL

Models - Sedan and Station Sedan

Removal

1. With door open and window raised, remove snib rod knob.
2. Remove armrest (where fitted) disconnect electrically operated window regulator switch (where fitted) remove door interior handles, inner trim panel and door inner panel water deflectors (refer Page 7 - 1).
3. Remove screw securing glass run channel retainer assembly to rear face of door inner panel (see Fig. 7 - 1).
4. From inside door, disengage glass run channel from retainer, then remove retainer out through aperture in door inner panel.

Installation

Reverse removal operations.

GUIDE WINDOW CAM - FRONT and/or REAR DOOR**Models - All****Removal**

1. With door open and window raised, remove snib rod knob.
2. Remove armrest (where fitted) disconnect electrically operated window regulator switch (where fitted) remove door interior handles, inner trim panel and door inner panel water deflectors (refer Page 7 - 1).

Remove bolts adjusting stud securing front guide window cam to door inner panel (see Figs. 7 - 1, 7 - 2 and 7 - 3) and on all doors except coupe, disengage and remove cam from door window rollers.

4. On coupe door, remove bolts securing front and rear guide window up travel stops to door inner panel.
5. On coupe door, remove bolt and adjusting stud securing rear guide window cam to door inner panel (see Fig. 7 - 2).
6. Disengage and remove cams from door window rollers.

Installation

Reverse removal operations, ensuring that window roller bearing surfaces of cams are adequately lubricated with zinc oxide grease or light oil and that cam bolts and adjusting stud(s) are adequately sealed.

NOTE: Use washer markings in sealing compound around cam bolts and adjusting stud(s) attaching holes as location guides when replacing door hardware.

CAM ASSEMBLY - SLIDING GLASS**Models - All****Removal**

1. With door open and window raised, remove snib rod knob.
2. Remove armrest (where fitted) disconnect electrically operated window regulator switch (where fitted) remove door interior handles, inner trim panel and door inner panel water deflectors (refer Page 7 - 1).
3. Remove bolts securing sliding glass cam assembly to door inner panel (see Figs. 7 - 2 or 7 - 3).
4. From inside door, disengage cam from window regulator arm roller and remove cam through aperture in door inner panel

Installation

Reverse removal operations, ensuring that regulator roller bearing surfaces of cam are adequately lubricated with zinc oxide grease or light oil and that cam attaching bolts are adequately sealed.

INNER TRIM PANEL - DOOR**Models - All****Removal**

1. With door open and window lowered, remove snib rod knob.
2. Remove armrest (where fitted) disconnect electrically operated window regulator switch (where fitted) and remove door interior handles (refer Page 7 - 1).
3. Using a wide bladed screwdriver positioned between rear lower corner of trim and door inner panel, carefully prise rear, bottom and front edges of trim from door inner panel (see Fig. 7 - 13).

4. Lift trim panel inwards and upwards, disengaging ribs of inner trim panel from slots in top of door inner panel.

Installation

Reverse removal operations.

ARMREST - DOOR

Front Door - All except Belmont

Rear Door - Premier & Statesman Sedan

Removal

1. On models fitted with the optional electrically operated window regulator, carefully prise switch assembly out of armrest and on RH front and rear doors, remove nut securing switch base to switch escutcheon (see Figs. 7 - 1, 7 - 2 or 7 - 3).
2. Remove screws securing armrest to door inner panel, then remove armrest.

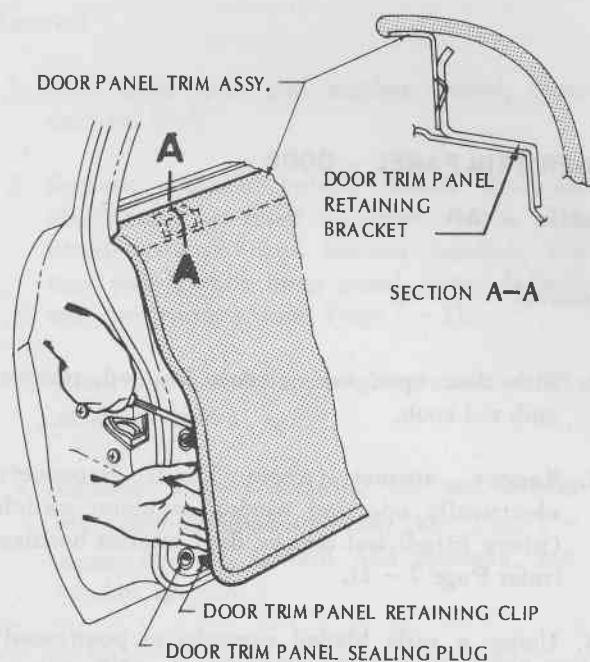


FIG. 7 - 13
DOOR INNER TRIM PANEL REMOVAL

Installation

Reverse removal operations.

HANDLE - DOOR INTERIOR

Front Door - Model - Belmont

Rear Door - Models - Belmont, Kingswood
and Premier Station Sedan

Removal

1. Insert interior handle removal Tool No. 21812X, between base of handle and bearing plate and in line with arm of handle, disengaging horse-shoe shaped retaining spring, as illustrated in Fig. 7 - 14.

Installation

1. Locate retaining spring in handle with open ends of spring facing arm of handle, pressing spring into the engaged position.
2. Place handle bearing plate onto remote control splines, with raised face towards door.
3. Press handle onto remote control splines until horse-shoe retaining spring engages in groove at base of remote control splines, ensuring that handle is located symmetrically with handle on opposite door, i.e., end of handle pointing forward in a horizontal plane.

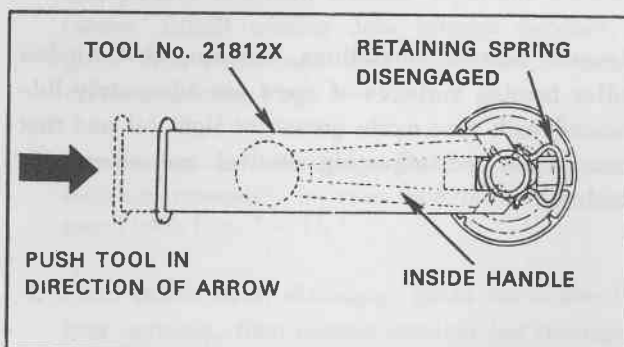


FIG. 7 - 14
DOOR INTERIOR HANDLE REMOVAL

HANDLE – DOOR INTERIOR**Front Door – Models – All except Belmont****Rear Door – Models – Premier and Statesman Sedan****Removal**

1. Remove armrest and screw securing door interior handle to remote control assembly (see Figs. 7 – 1, 7 – 2 or 7 – 3).

Installation

Reverse removal operations, ensuring that handle is positioned in a horizontal plane, in line with top of armrest.

HANDLE – DOOR EXTERIOR**Models – All****Removal**

1. With door open and window raised, remove snib rod knob.
2. Remove armrest (where fitted) and disconnect electrically operated window regulator switch (where fitted) remove door interior handles, inner trim panel and door inner panel water deflectors, (refer Fig. 7 – 1).
3. From inside door, remove nuts securing exterior handle to door outer panel (see View A, Figs. 7 – 1, 7 – 2 or 7 – 3).
4. Disengage handle to lock connecting rod from door lock and remove handle from outside door.

Installation

Reverse removal operations.

Adjustment

With door lock in locked position and from inside door, turn plastic nut attached to lower end of exterior handle to door lock connecting rod (see Figs. 7 – 1, 7 – 2 or 7 – 3) in a clockwise direction to relieve connecting rod tension, or anti-clockwise to increase tension.

WEATHERSTRIP ASSEMBLY – DOOR**Models – All except Coupe****Removal**

1. Using end of weatherstrip removal and inserting Tool No. 1A4 (see Fig. 7 – 15) between weatherstrip and door inner panel at clip location, carefully prise clips from weatherstrip retaining holes.
2. Check weatherstrip clips for correct shape and reform if necessary, using clip reforming Tool No. 1A3 (see Fig. 7 – 16).

Installation

1. Ensure that weatherstrip clip attaching holes and sealing plugs are correctly installed in door inner panel holes below door belt line.
2. Insert weatherstrip clips into holes around door inner panel by positioning notched end of weatherstrip inserting Tool (No. 1A4) into clip hole and inserting clip into hole as illustrated in Fig. 7 – 15.

WEATHERSTRIP ASSEMBLY – DOORS**Models – Coupe****Removal**

1. Carefully ease off front and rear upper ends of weatherstrip, which are attached to the door inner panel with Neoprene cement.
2. Using end of weatherstrip removal and inserting Tool No. 1A4 (see Fig. 7 – 15) between weatherstrip and door inner panel at clip locations, carefully prise clips from weatherstrip retaining holes.
3. Clean or smooth off any hardened cement from front and rear upper section of door inner panel.
4. Check weatherstrip clips for correct shape and reform if necessary, using clip reforming Tool No. 1A3 (see Fig. 7 – 16).



FIG. 7 - 15
WEATHERSTRIP CLIP REMOVAL
AND INSTALLATION TOOL

Installation

1. Ensure that weatherstrip clip attaching hole sealing plugs are correctly installed in all weatherstrip clip holes.
2. Insert weatherstrip clips into holes around sides and bottom of door inner panel by positioning notched end of weatherstrip inserting Tool (No. 1A4) into clip and inserting clip into hole, as illustrated in Fig. 7 - 15.
3. Attach upper ends of weatherstrip, between attaching clips and ends of weatherstrip, to door inner panel with Neoprene cement.

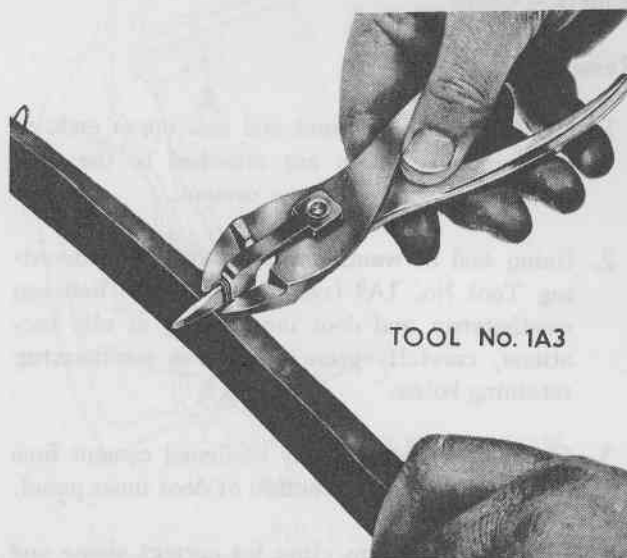


FIG. 7 - 16
WEATHERSTRIP CLIP REFORMING TOOL

BELT WEATHERSTRIP - FRONT and REAR DOOR OUTER

Models - All except Coupe

Removal

1. With door window lowered, position a wide bladed screwdriver between belt weatherstrip and inner flange of door outer panel, then carefully prise weatherstrip retaining clips out of slots in door outer panel.

Installation

Reverse removal operations.

BELT WEATHERSTRIP - DOOR OUTER

Models - Coupe

Removal

1. With door open and window lowered, remove snib rod knob.

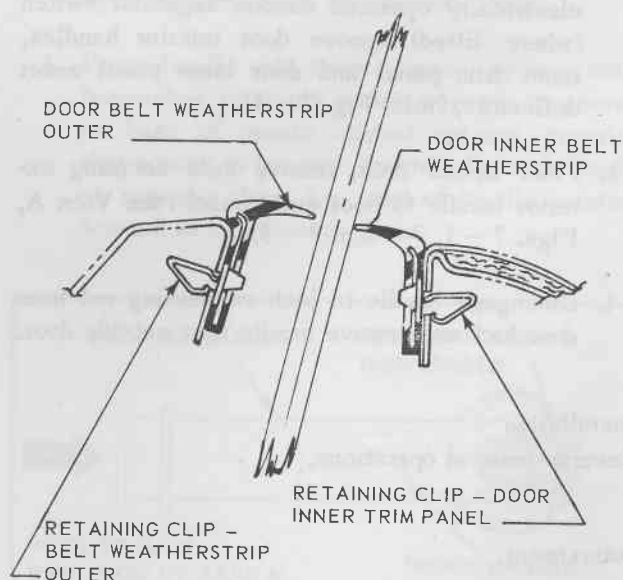


FIG. 7 - 17
BELT WEATHERSTRIPS - FRONT & REAR DOORS
MODEL - SEDAN & STATION SEDAN

2. Remove armrest (where fitted) disconnect electrically operated window regulator switch (where fitted) remove door interior handles, inner trim panel and door belt inner weatherstrip (refer Page 7 - 1).
3. Loosen bolts securing window anti-rattle brackets to door inner panel (see Fig. 7 - 2).
4. Remove screw securing rear end of door belt moulding to door.
5. Apply masking tape adjacent to door belt moulding and using a wide bladed screwdriver, carefully prise moulding off retaining clips.
6. Remove screw attached door belt moulding retaining clips from door outer panel, ease top of window inboard, then remove screws securing outer belt weatherstrip to inner flange of door outer panel, releasing weatherstrip.

Installation

Reverse removal operations.

BELT WEATHERSTRIP - DOOR INNER

Models - All

Removal

1. With door open and window lowered, remove snib rod knob.
2. Remove armrest (where fitted) disconnect electrically operated window regulator switch (where fitted) remove door interior handles and inner trim panel (refer Page 7 - 1).
3. Remove door belt inner weatherstrip, which on all doors except coupe is screwed to the top, outer flange of inner trim panel. On coupe door, lift door belt inner weatherstrip off door inner panel flange.

Installation

Reverse removal operations.

GLASS RUN CHANNEL - FRONT DOOR

Models - All except Coupe

Removal

1. With door open and window lowered, remove snib rod knob.
2. Remove armrest (where fitted) disconnect electrically operated window regulator switch (where fitted) remove door interior handles, inner trim panel and rear end of door inner panel water deflector (refer Page 7 - 1).
3. Loosen off bolts securing top of front guide window cam to door inner panel (see Fig. 7 - 1).
4. Holding top of window, ease window forward to relieve pressure from rear lower end of run channel.
5. Ease glass run channel out of upper door frame and retainer, inside trailing edge of door.

Installation

1. Feed rear lower end of glass run channel into retainer inside trailing edge of door, through window aperture.
2. Install remainder of glass run channel into upper door frame prior to reversing removal operations.

GLASS RUN CHANNEL - REAR DOOR

Models - Sedan and Station Sedan

Removal

1. With window lowered, ease glass run channel out of upper door frame.

Installation

Reverse removal operations.

SECTION 8

SEATS

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SEATS

Description

The general construction and method of upholstering the front bench, bucket, reclining and rear seats are similar and comprise basic steel frames, accommodating ZIG-ZAG type springs over which upholstery is applied. The upholstery is attached to the seat springs and frames with a combination of "Hog" rings, clinch over tabs, retaining wires, trim clips and Neoprene cement. Fig. 8-1 illustrates the front bench seat assembly and shows typical construction through a cut-away section of the upholstery.

The front seats can be adjusted forwards and rearwards by means of sliding seat adjusters (see Figs. 8-3 and 8-4). An additional one inch rearward adjustment can be obtained by repositioning the seat adjuster to floor attaching bolts in the forward set of attaching holes in the seat adjusters (see View A, Fig. 8-3).

The rear seat cushion on all models is screwed to the rear floor crossbar, through brackets attached to the lower section of the rear seat cushion frame (see View D, Fig. 8-6).

On sedans and coupes, the upper section of the rear seat back frame is hooked over hanger brackets attached to the rear compartment front panel (see View A, Fig. 8-6).

The outer lower section of the sedan and coupe seat back frame is secured to the rear wheelhouses with clinch-over tabs. On coupes, these tabs are screwed to the rear wheelhouses (see View C, Fig. 8-6). View B, Fig. 8-6 illustrates the method of attaching the inner lower ends of the seat back on sedans and coupes. On sedans, the bend-over tabs are screwed to the rear compartment front panel (see Section A-A, Fig. 8-6).

The rear seat back on station sedans is hinged at the rear wheelhouse and is retained in the upright position by remote control plungers engaging in rear seat back stop brackets (see Section A-A, Fig. 8-7).

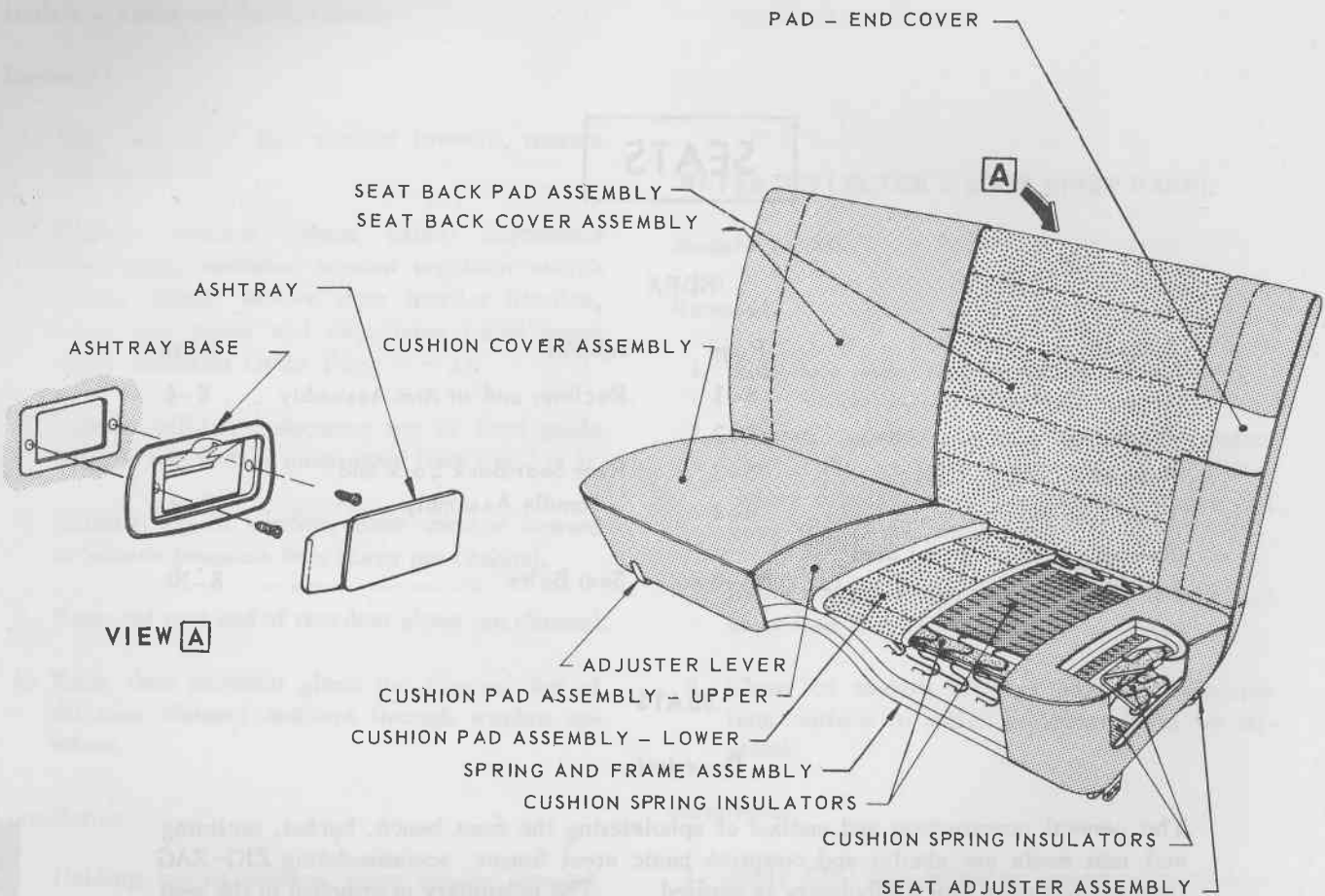


Fig. 8-1
FRONT SEAT

FRONT SEAT

Models - All

Removal

1. Loosen sill plate attaching screws and ease floor covering away from seat adjuster to floor attaching bolts.
2. Position seat fully rearward and using a thin ratchet spanner with a 5/16" female hexagon insert, remove bolts securing front end of seat adjusters to floor (see Section A-A, Fig. 8-2).
3. Position seat fully forward and remove bolts securing rear end of seat adjuster to floor.

4. With the aid of assistant, remove front seat from body and place on a clean protected surface.

Installation

1. Ensure that frictional surfaces of the seat adjusters are adequately lubricated with zinc oxide grease or light oil.
2. Apply caulking compound around seat adjuster to floor attaching bolt holes prior to reversing removal operations (see Section A-A, Fig. 8-2).

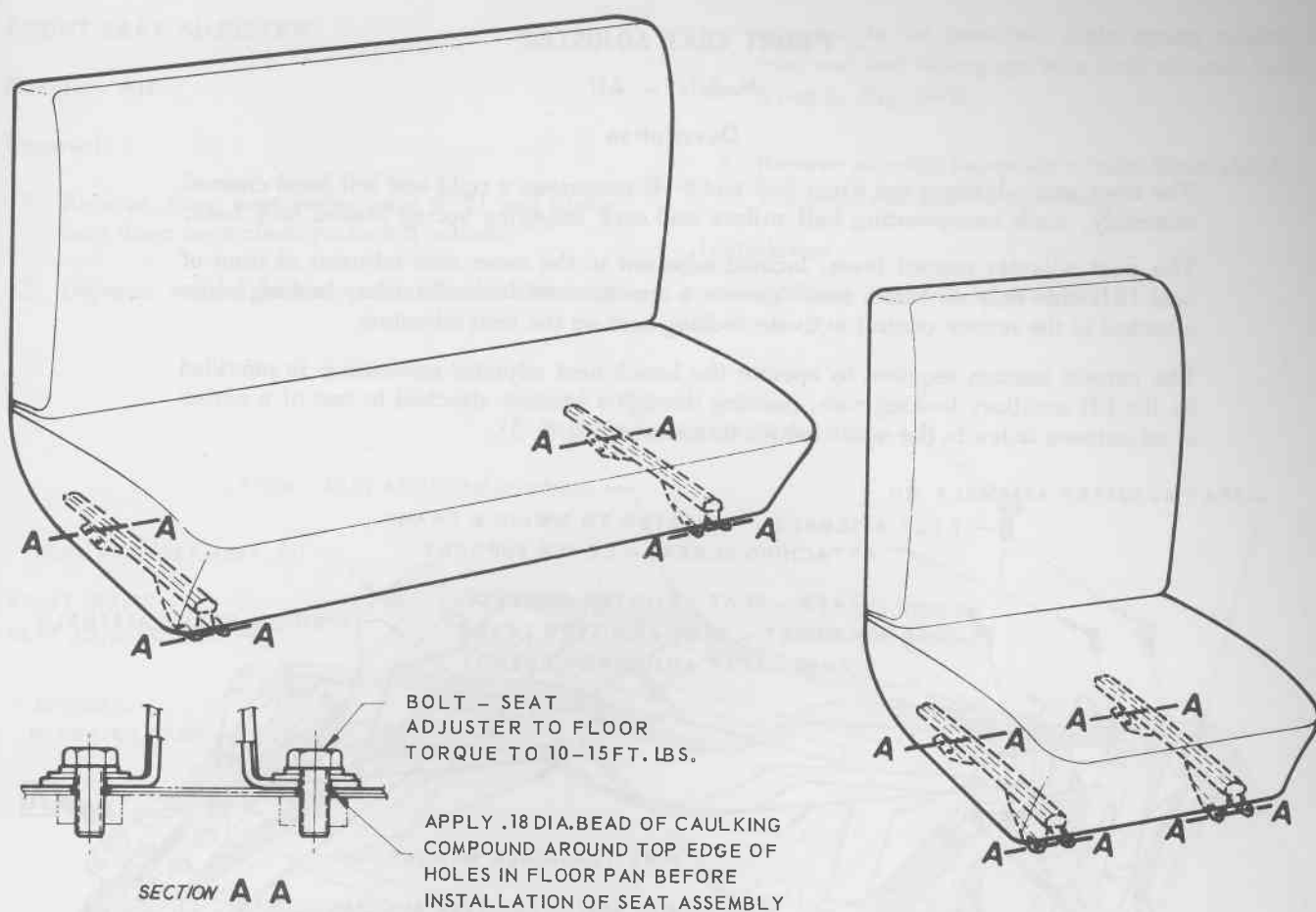


Fig. 8-2
FRONT SEAT INSTALLATION

REAR SEAT

Models - All except Station Sedan

Removal

1. Remove screws securing seat cushion frame brackets to rear floor crossbar (see View D, Fig. 8-6).
2. On Coupes, remove rear quarter armrest, where fitted.
3. Lift rear seat cushion from body and place on a clean protected surface
4. Unclinch retainers and remove screws securing seat back to rear wheelhouse and rear compartment front panels (see Views B and C, Fig. 8-6).
5. Lift seat back off hanger brackets attached to rear compartment front panel (see View A, Fig. 8-6), remove from body and place on a clean protected surface.

Installation

Reverse removal operations, ensuring that sealing instructions illustrated in Section A-A and B-B, Fig. 8-6, are observed.

REAR SEAT

Models - Station Sedan

Removal

1. Lower rear seat back and remove hinge to seat back attaching bolts (see View B, Fig. 8-7).
2. Remove seat back from body and place on a clean protected surface.
3. Remove screws securing seat cushion frame brackets to rear floor crossbar (see View C, Fig. 8-7).
4. Lift rear seat cushion from body and place on a clean protected surface.

Installation

1. Apply caulking compound around seat back hinge attaching holes in wheelhouse (see Section E-E, Fig. 8-7) prior to reversing removal operations.

FRONT SEAT ADJUSTER

Models - All

Description

The front seat adjuster (see Figs. 8-3 and 8-4) comprises a right and left hand channel assembly, each incorporating ball rollers and rack engaging spring loaded lock bars.

The seat adjuster control lever, located adjacent to the outer seat adjuster at front of seat (RH side only on bench seat) govern a remote control. Auxiliary locking wires attached to the remote control activate locking bars on the seat adjusters.

The correct tension required to operate the bench seat adjuster mechanism is provided by the LH auxiliary locking wire, passing through a bracket attached to one of a series of adjustment holes in the seat cushion frame (see Fig. 8-3).

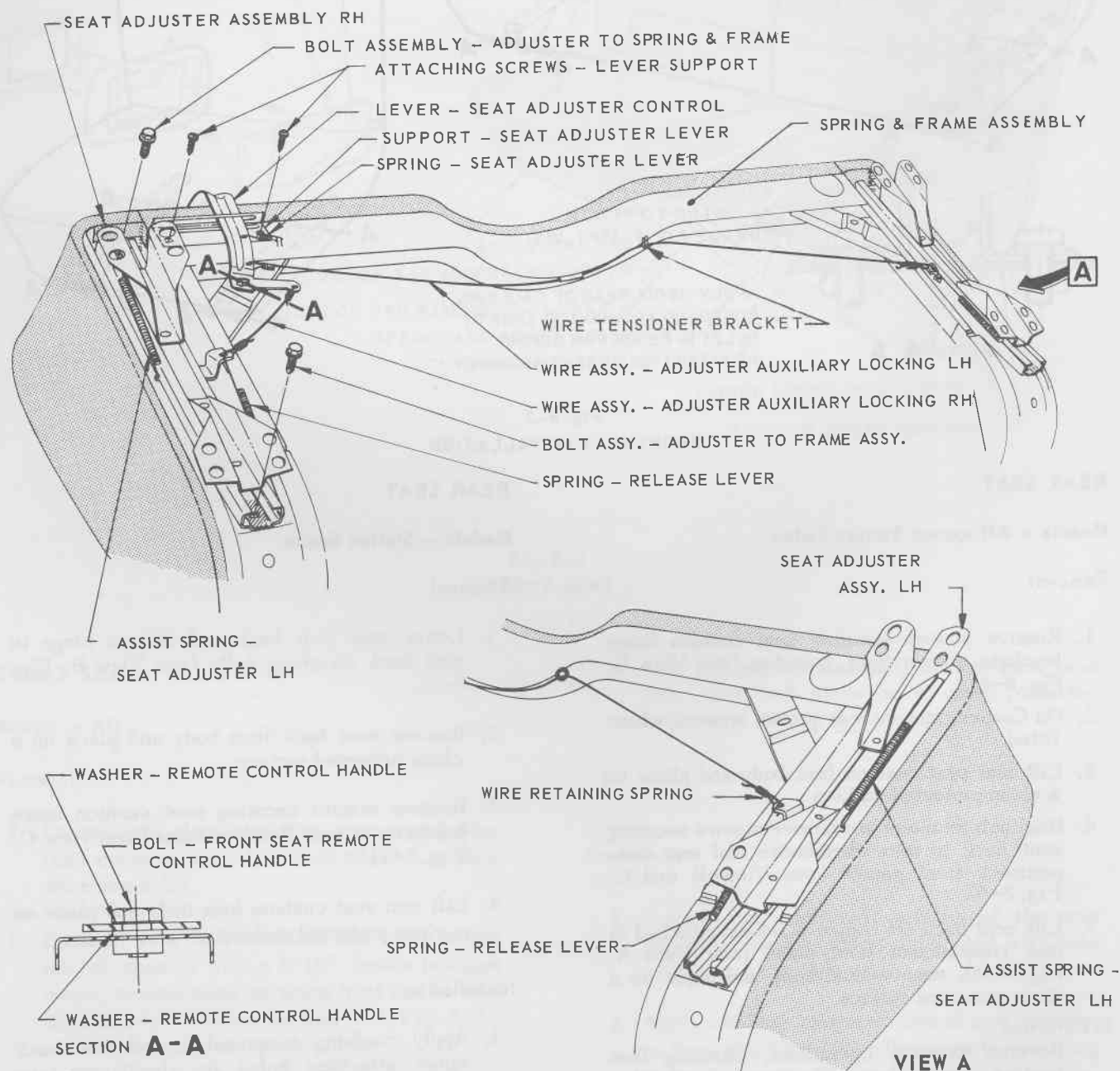


Fig. 8-3
FRONT BENCH SEAT ADJUSTER ASSEMBLY

FRONT SEAT ADJUSTER

Models - All

Removal

1. Remove front seat (refer page 8-2) and place face down on a clean protected surface.
2. Depress end of locking wire attached to seat

adjuster to be removed, slide spring retainer over end and disengage wire from adjuster (see View A, Fig. 8-3).

3. Remove adjuster assembly to seat frame attaching bolts and remove assembly.

Installation

Reverse removal operations.

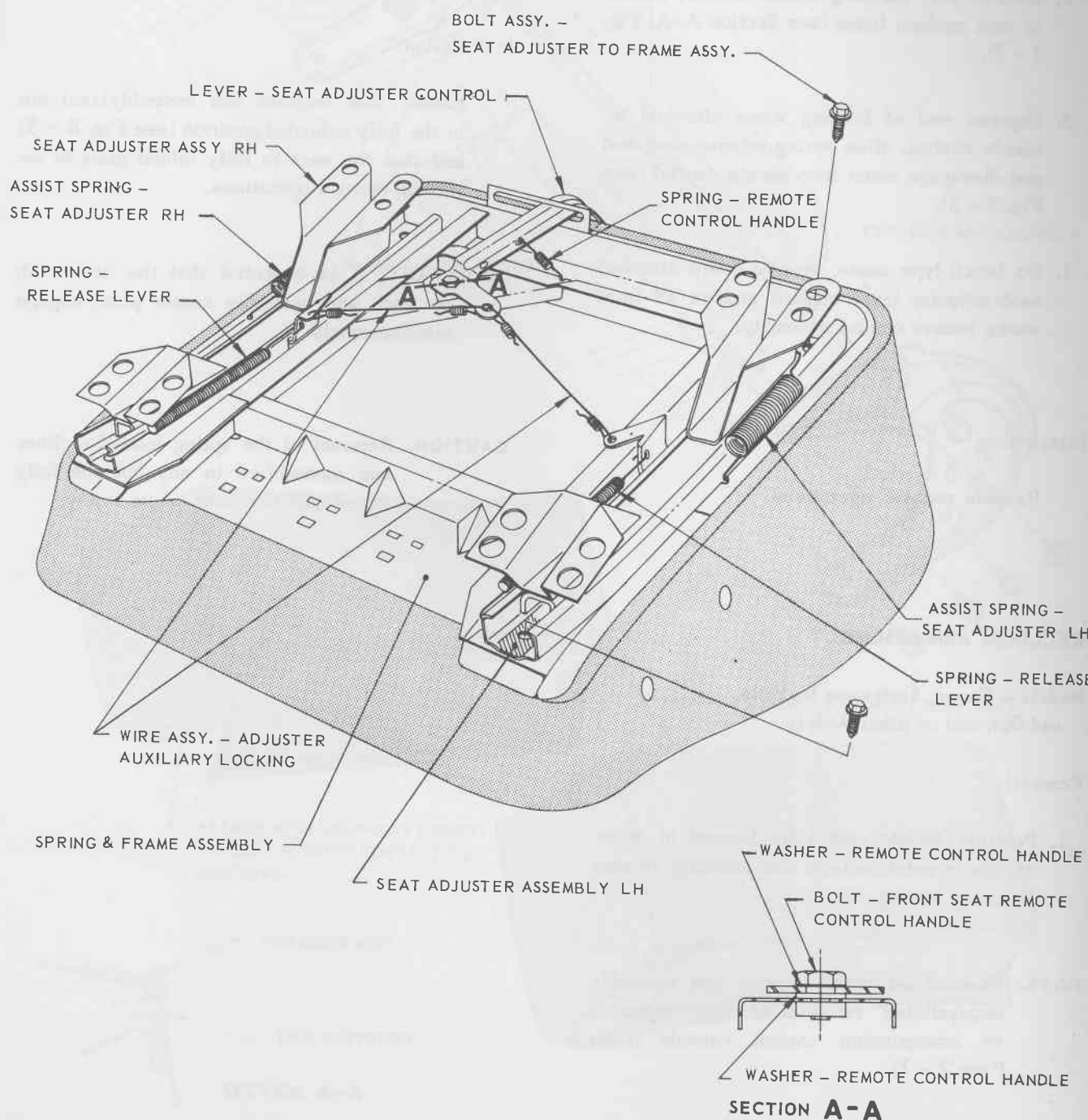


Fig. 8-4
BUCKET SEAT ADJUSTER ASSEMBLY

REMOTE CONTROL - FRONT SEAT ADJUSTER

Models - All

Removal

1. Remove front seat (refer Page 8 - 2) and place face down on a clean protected surface.
2. Remove bolt securing remote control handle to seat cushion frame (see Section A-A, Fig. 8 - 3).
3. Depress end of locking wires attached to remote control, slide spring retainer over end and disengage wires from remote control (see Fig. 8 - 3).
4. On bench type seats, remove screw attached seat adjuster lever support and on all front seats, remove control assembly.

Installation

Reverse removal operations.

2. Locate seat back in its fully folded position (see Fig. 8 - 5).
3. Remove screws securing outer or inner arm assembly to seat cushion and back.
4. Disengage arm assembly(ies) from torque tube, removing assembly(ies).

Installation

Ensure that recliner arm assembly(ies) are in the fully unloaded position (see Fig. 8 - 5) and that the seat is fully folded prior to reversing removal operations.

IMPORTANT: It is essential that the first tooth on each arm assembly sector plate engage simultaneously.

CAUTION: Removal of the spring loaded recliner arm assemblies in any but the fully folded position can cause injury.

RECLINER ARM ASSEMBLY

Models - Coupe, Statesman De Ville
and Optional on other Models

Removal

1. Position bucket seat fully forward to allow access to outer recliner arm assembly to seat attaching screws.

NOTE: Removal of inner recliner arm assembly necessitates removal of seat separator or transmission control console (refer Page 2 - 1).

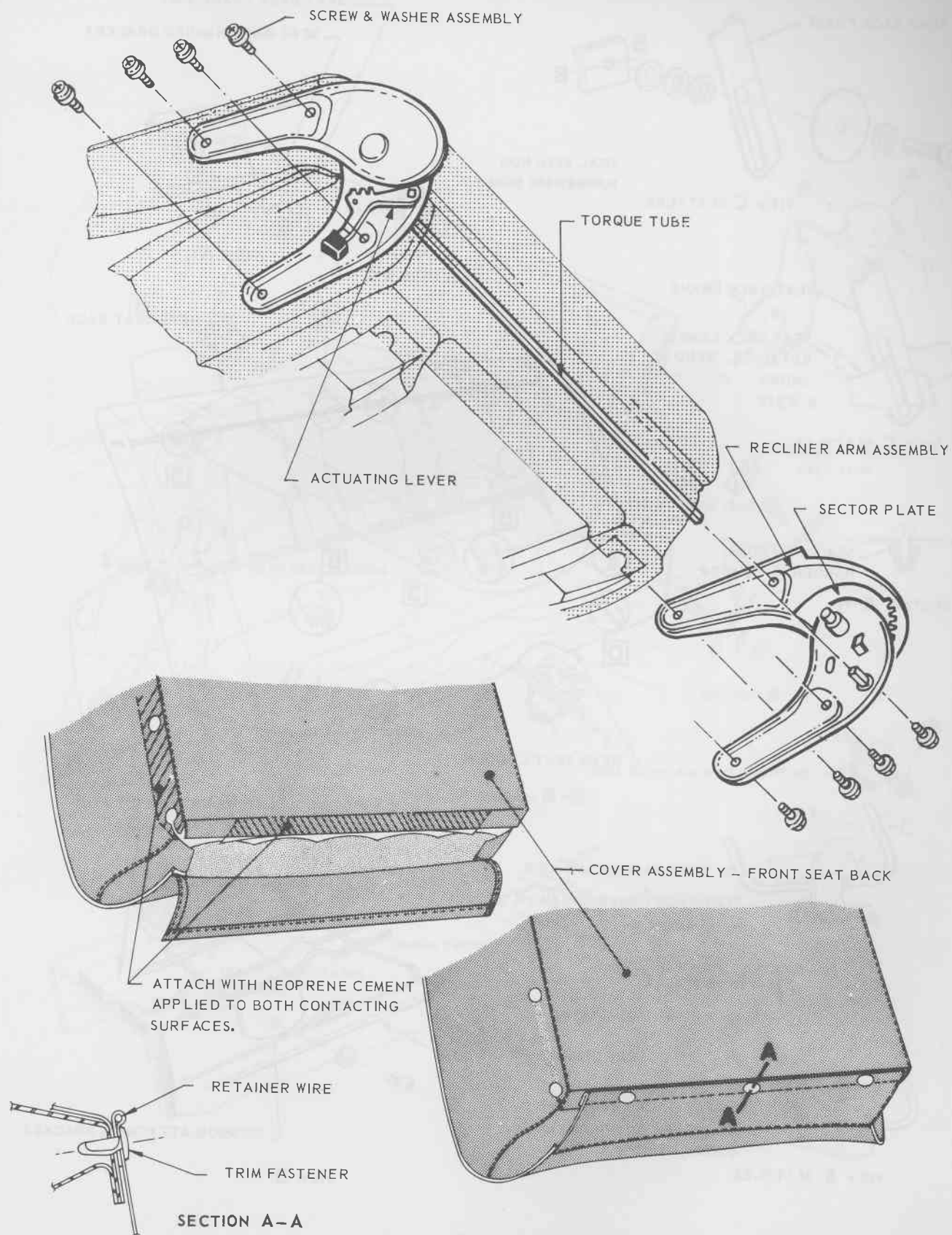


Fig. 8-5
FRONT SEAT RECLINER ASSEMBLY
MODELS - COUPE

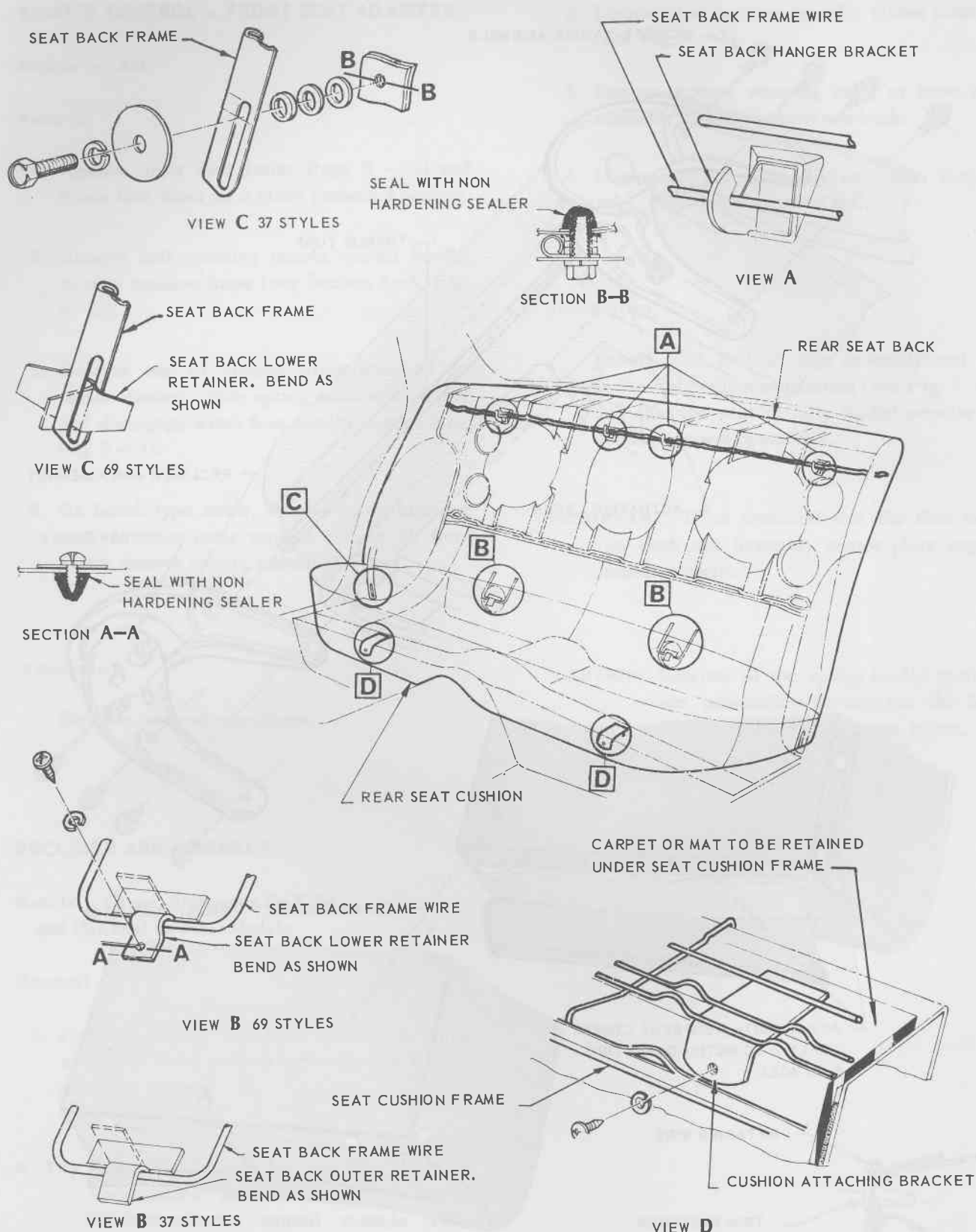


FIG. 8 - 6
REAR SEAT CUSHION & BACK INSTALLATION
MODELS - SEDAN & COUPE

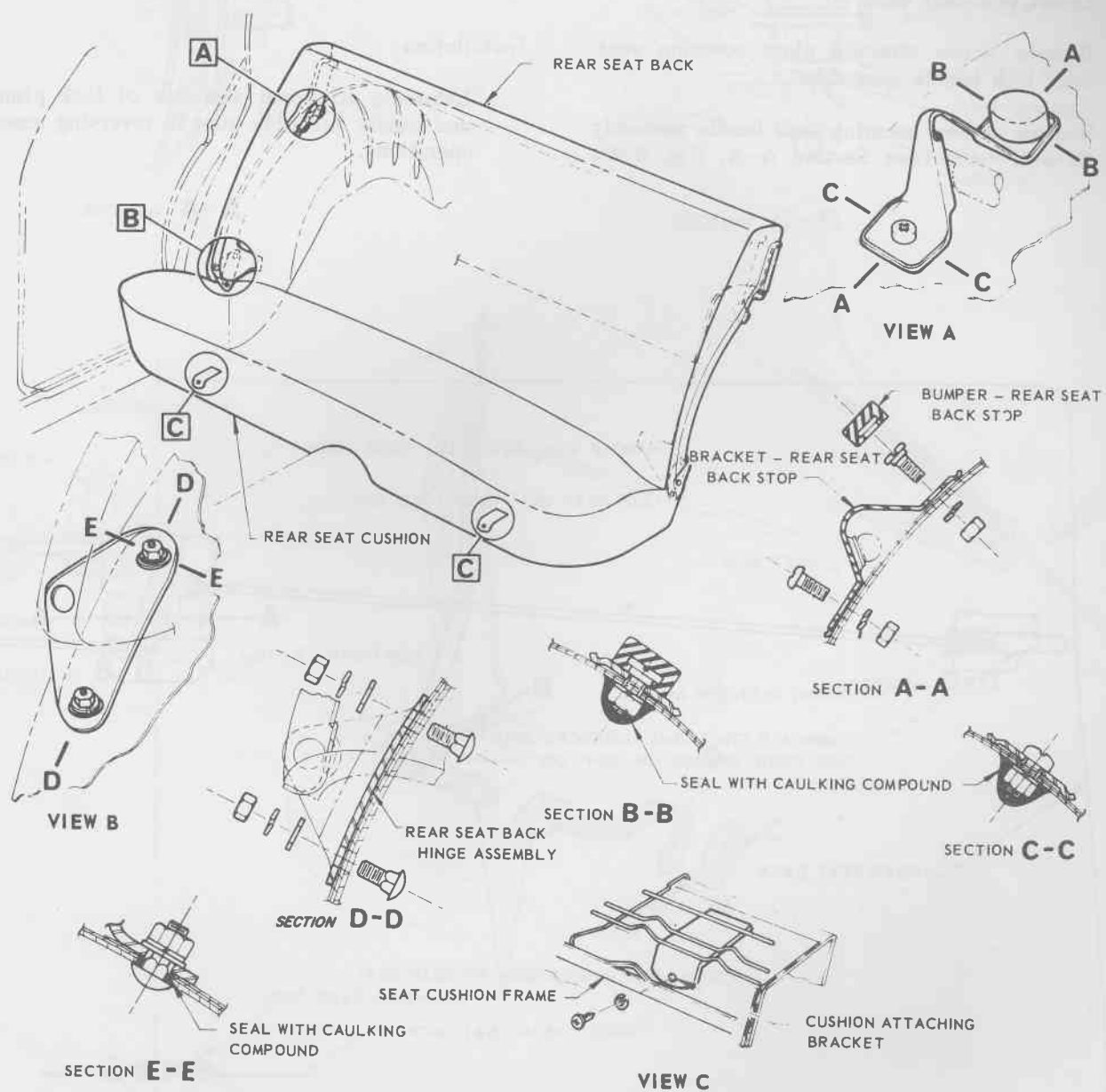


Fig. 8-7

REAR SEAT CUSHION AND BACK INSTALLATION
MODEL - STATION SEDAN

REAR SEAT BACK LOCK & HANDLE ASSEMBLY**Models - Station Sedan****Removal**

1. Lower rear seat back.
2. Remove screw attached plate covering seat back lock handle assembly.
3. Remove screws securing lock handle assembly to seat back (see Section A-A, Fig. 8-8).

4. Disengage lock bar attaching clips from lock plunger assembly and remove lock handle assembly from seat back.
5. Withdraw lock plunger assemblies from sides of seat back.

Installation

Lubricate frictional surfaces of lock plunger and handle assembly prior to reversing removal operations.

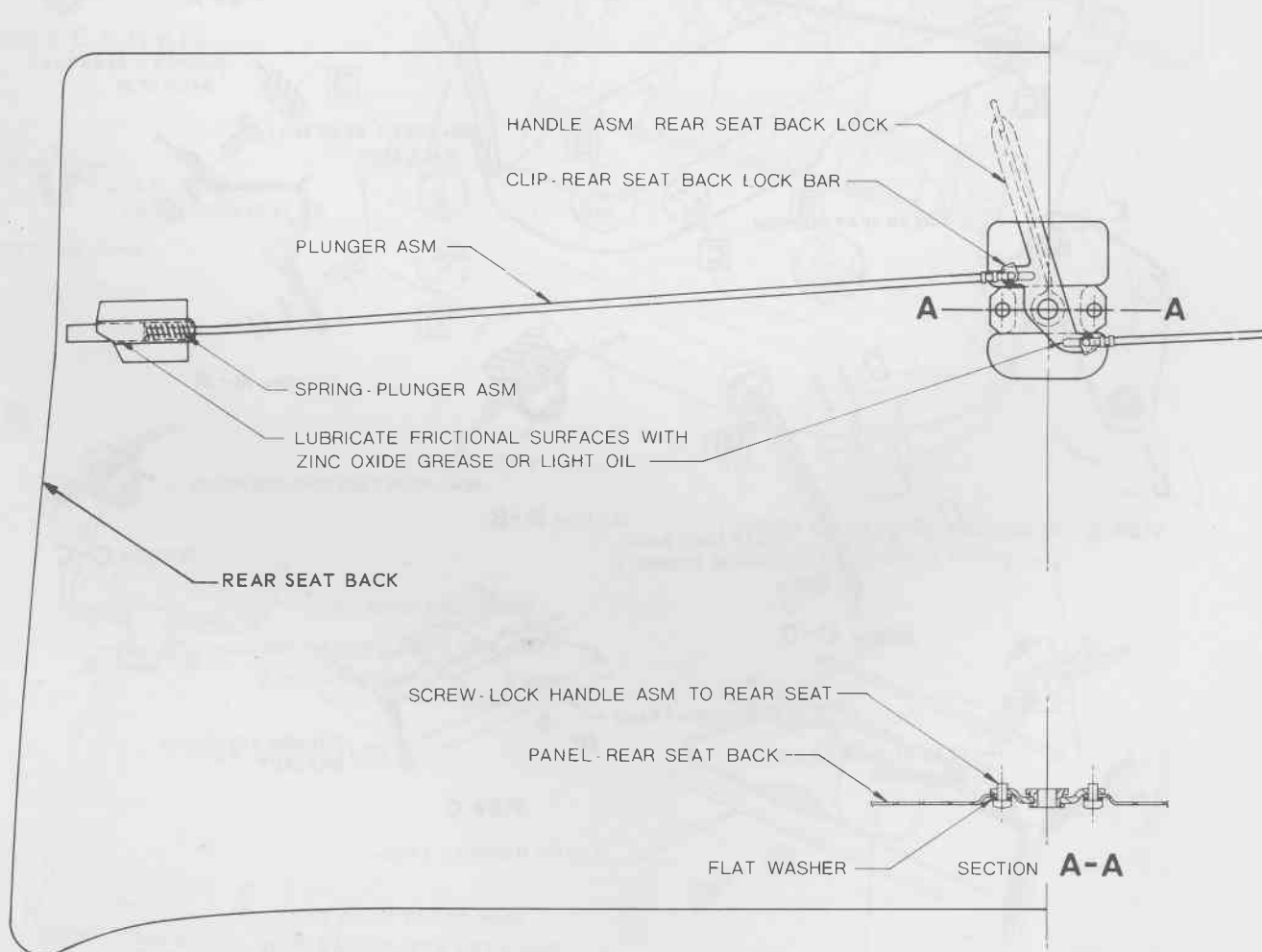


Fig. 8-8
REAR SEAT BACK LOCK AND HANDLE ASSEMBLY

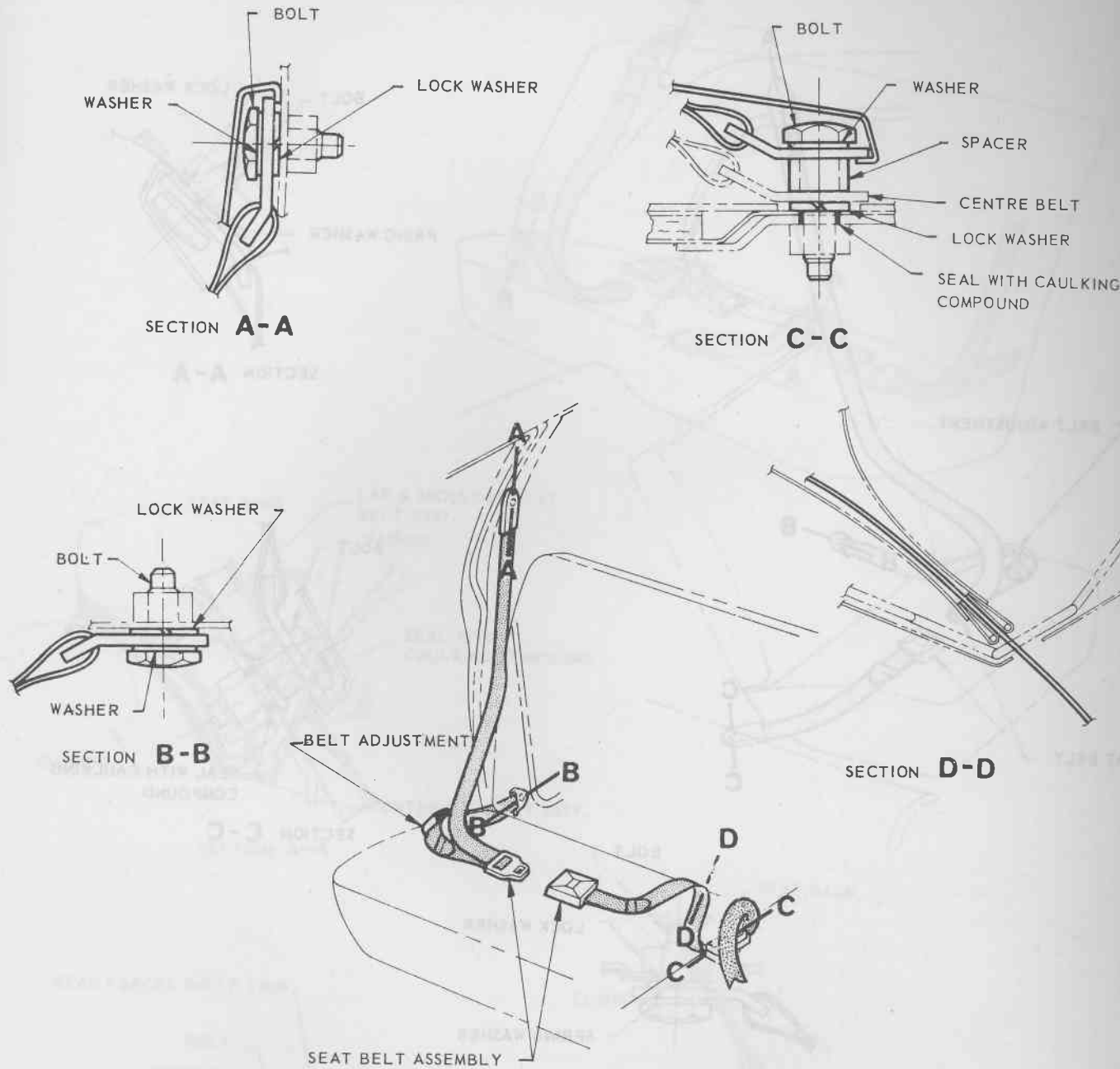
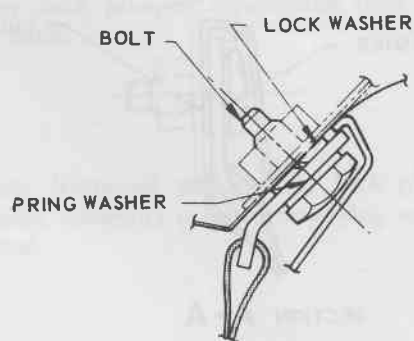
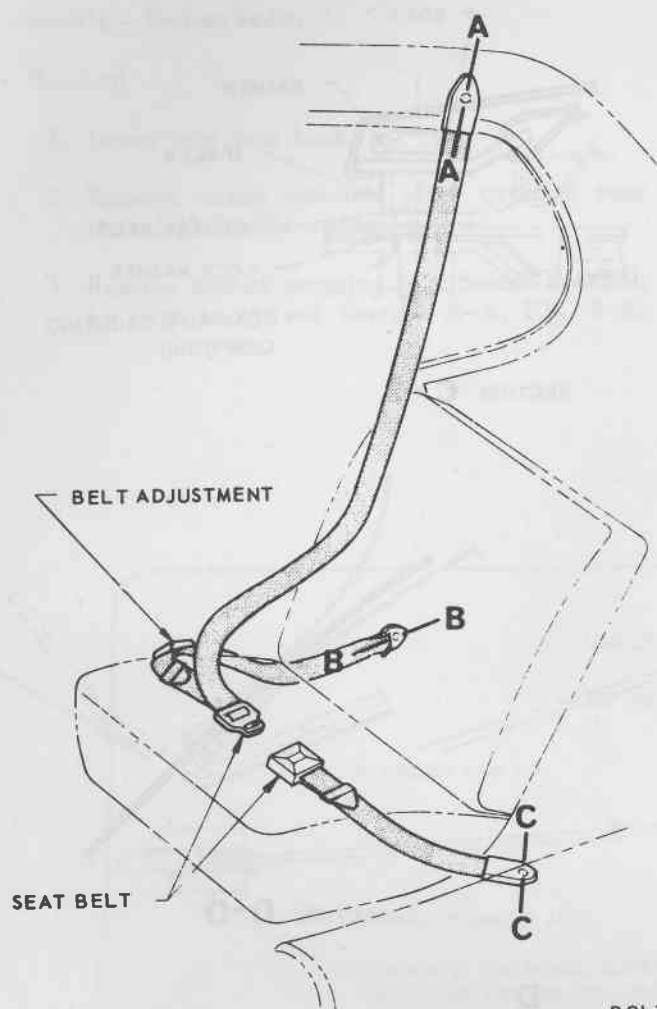
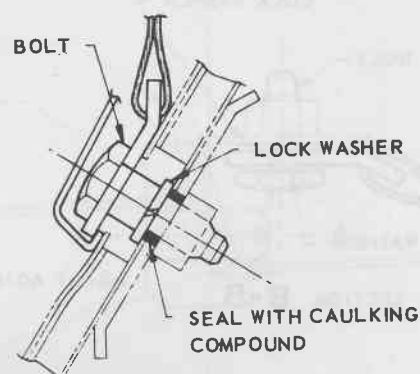


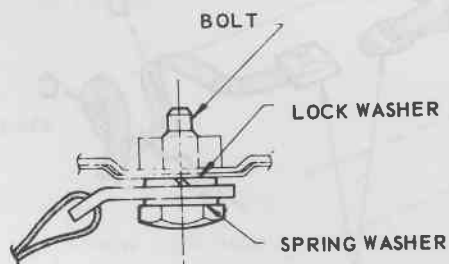
Fig. 8-9
 FRONT BENCH SEAT BELT INSTALLATION
 MODELS - ALL EXCEPT COUPE



SECTION A-A



SECTION C-C



SECTION B-B

Fig. 8-10
FRONT SEAT BELT INSTALLATION
MODELS - COUPE

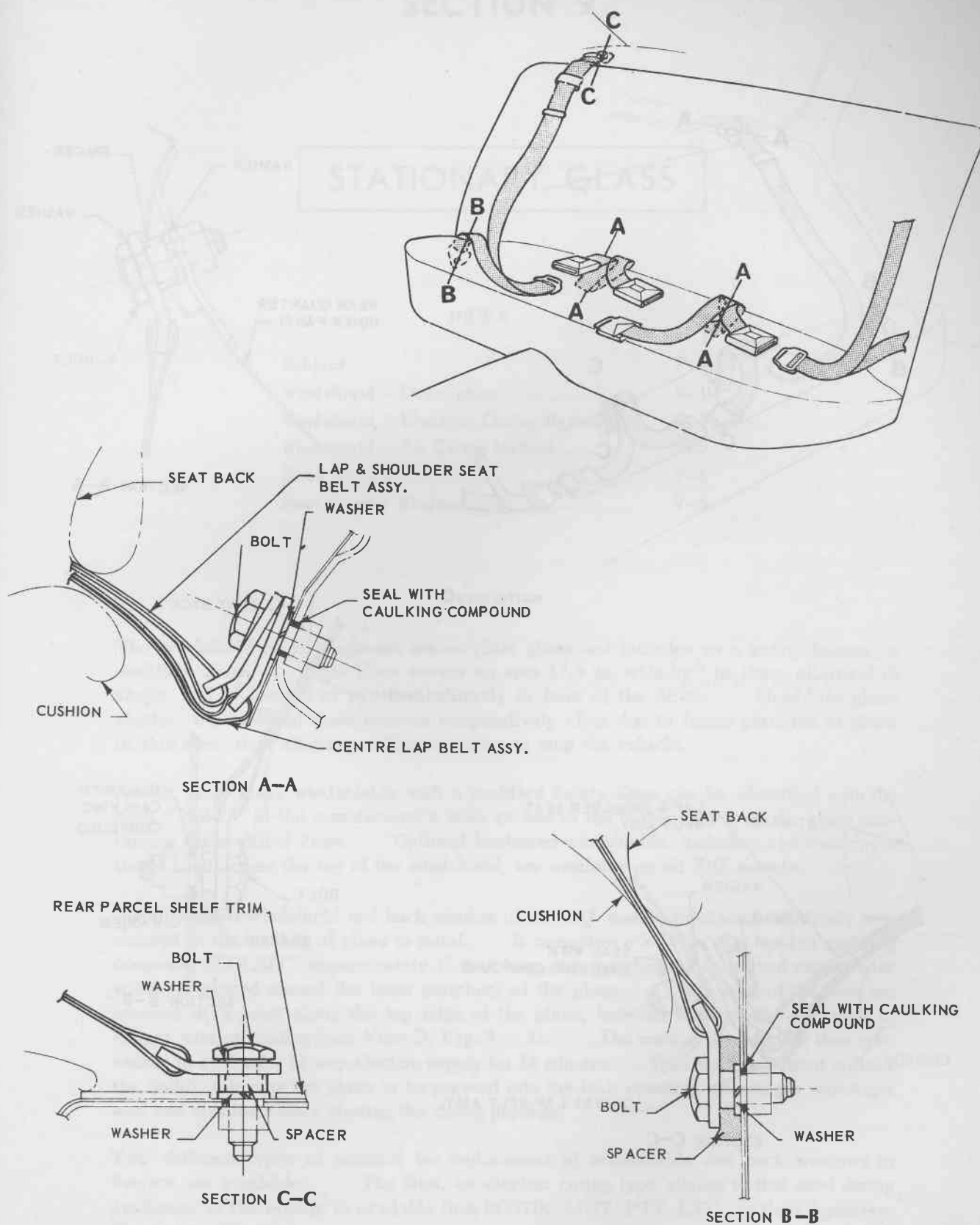


FIG. 8 - 11
REAR SEAT BELT INSTALLATION
MODELS - COUPE & SEDAN

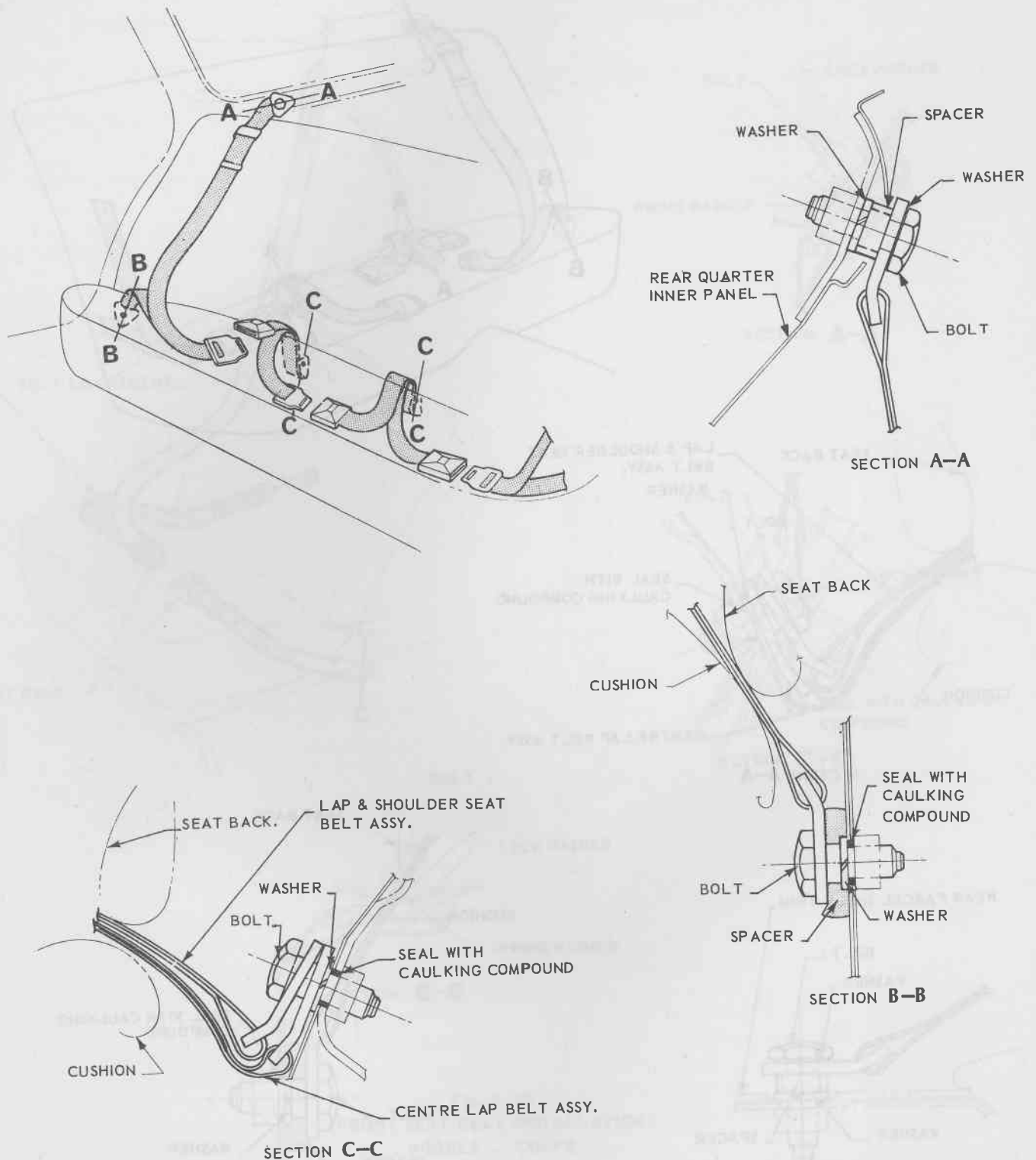


FIG. 8 - 12
REAR SEAT BELT INSTALLATION
MODELS - STATION SEDAN

SECTION 9

STATIONARY GLASS

INDEX

Subject	Page
Windshield - Description	9-1
Windshield - Electric Curing Method ...	9-3
Windshield - Air Curing Method	9-5
Back Window	9-6
Rear Quarter Window	9-6

Description

The windshield is of toughened armour plate glass and includes as a safety feature, a modified Zone. This Zone covers an area 17.5 in. wide by 7 in. deep, elliptical in shape and is located at eye level directly in front of the driver. Should the glass shatter, the modified Zone remains comparatively clear due to larger particles of glass in this area, thus allowing sufficient vision to stop the vehicle.

Armour plate glass windshields with a modified Safety Zone can be identified with the work "ZONE" in the manufacturer's mark etched in the bottom centre of the glass containing the modified Zone. Optional laminated windshields, including one featuring a tinted band across the top of the windshield, are available on all 'HQ' models.

Installation of windshield and back window of all 'HQ' models involves a relatively new concept in the bonding of glass to metal. It comprises a 5/16 in. dia. bead of caulking compound "SOLBIT" approximately 15 feet long, incorporating a centralized copper wire which is placed around the inner periphery of the glass. The ends of the bead are crossed at a point along the top edge of the glass, between weld studs, with ends of copper wire protruding (see View D, Fig. 9 - 2). The ends of the wire are then connected to a 24 volt, 12 amp electric supply for 12 minutes. This electric current softens the Solbit, allowing the glass to be pressed into the body opening, effecting a watertight seal and simultaneously starting the curing process.

Two different types of material for replacement of windshields and back windows in Service are available. The first, an electric curing type similar to that used during production of the vehicle is available from BOSTIK AUST. PTY. LTD., or their Agencies. This kit comprises:-

1. Coil of SOLBIT caulking compound bead which requires refrigerated storage at 30° F or below.
1. Container of paint finish primer.
1. Container of glass primer.
2. Water soluble spacers (for locating glass).
2. Emergency water soluble spacers (to achieve .28 dimension in Fig. 9 - 2).
1. Length of music wire (for cutting out old glass).

The curing of Silicone Sealant is slow at temperatures of 50° F and below, therefore it should not be used in cold climates without provision for this condition immediately after installation.

NASCO stock this material in the following two kits:-

Part No. 2823265 - Windshield Silicone Caulking Package - All Styles.
 Part No. 2823266 - Rear Window Silicone Caulking Package - Sedans & Coupes.

These Kits comprise:-

1. Container of silicone adhesive caulking compound, which does not require refrigerated storage.
1. Plastic nozzle (for application of caulking material).
1. Foam rubber (adhesive backed) seal, (for positioning caulking compound around periphery of glass).
2. Water soluble spacers (for locating glass).
2. Emergency water soluble spacers (to achieve .28 dimension in Fig. 9 - 3).
1. Container of paint finish primer.
1. Length of music wire (for cutting out old glass).

CAUTION: This silicone caulking adhesive material supplied in the kit starts to cure immediately it is dispensed from the container. Any undue pressure on the inside of the glass (such as would be exerted when a door is slammed with all windows closed, or the vehicle driven with the vent fully open with all windows closed) should be avoided for at least twenty four hours after glass installation.

WINDSHIELD**Models - All****Removal**

1. Place protective covering over the paint finish adjacent to windshield.
2. Remove windshield wiper rod and blade assemblies (refer Page 3 - 1).
3. Remove windshield reveal mouldings (refer Page 12 - 1).
4. Remove internal rear vision mirror assembly.
5. Remove windshield garnish mouldings (refer Page 3 - 1).
6. Remove front headlining finishing lace (refer Page 10 - 1).
7. From inside body, pierce caulking compound bead at top of windshield and insert one end of a 2' approx. length of .020" music wire through bead and copper wire core.
8. Securely attach wooden handles to both ends of music wire (see Fig. 9 - 1) and with the aid of an assistant inside the body, work wire around periphery of windshield using a saw like action to cut through caulking compound bead.
9. Remove windshield.
10. Remove surplus caulking compound bead remaining on flanges of body opening, then thoroughly clean flanges with a clean cloth dampened with an oil free cleaning solvent such as Shell X-55 Solvent or equivalent.

Installation**ELECTRIC CURING METHOD**

1. Visually check body opening flanges and correct any existing irregularities.
2. Prime shaded area of complete body opening flange with the paint finish primer supplied in kit (see Views A and B, Fig. 9 - 2).
3. Position two spacer blocks at locations illustrated in View E, Fig. 9 - 2).

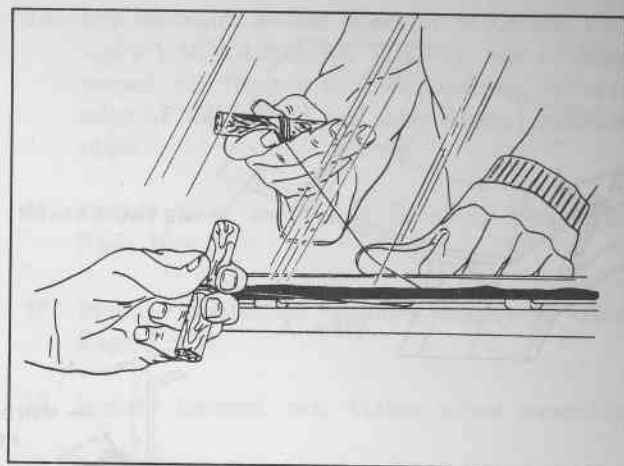


FIG. 9 - 1
WINDSHIELD REMOVAL

4. Centrally position glass in body opening on spacer blocks, then apply a piece of masking tape over each side edge of glass and adjacent front body pillar. Slit tape vertically at edge of glass. During installation, tape on glass and pillar can be aligned, ensuring correct location of glass.
5. Place glass on a clean protected surface, then apply a thin coating of glass primer around the entire perimeter of the glass contacting area to dimensions illustrated in View C, Fig. 9 - 2.

CAUTION: Avoid touching primed areas of glass and body opening flanges. Also avoid spillage of glass primer onto glass, as this is extremely difficult to remove. When applying solvents to the optional laminated windshield, avoid contacting edge of windshield with solvents as such contact can create a wick action, discolouring the plastic laminate between sheets of glass.

6. With Solbit bead still in its plastic container, bare ends of bead to copper wire core for approximately 1".
7. Pre-heat Solbit by connecting copper ends of bead to a 24 volt, 12 amp electric supply for approximately 15 to 30 seconds, depending on ambient temperature, allowing Solbit to become pliable; then blow off any moisture existing on the Solbit coil using an air hose.

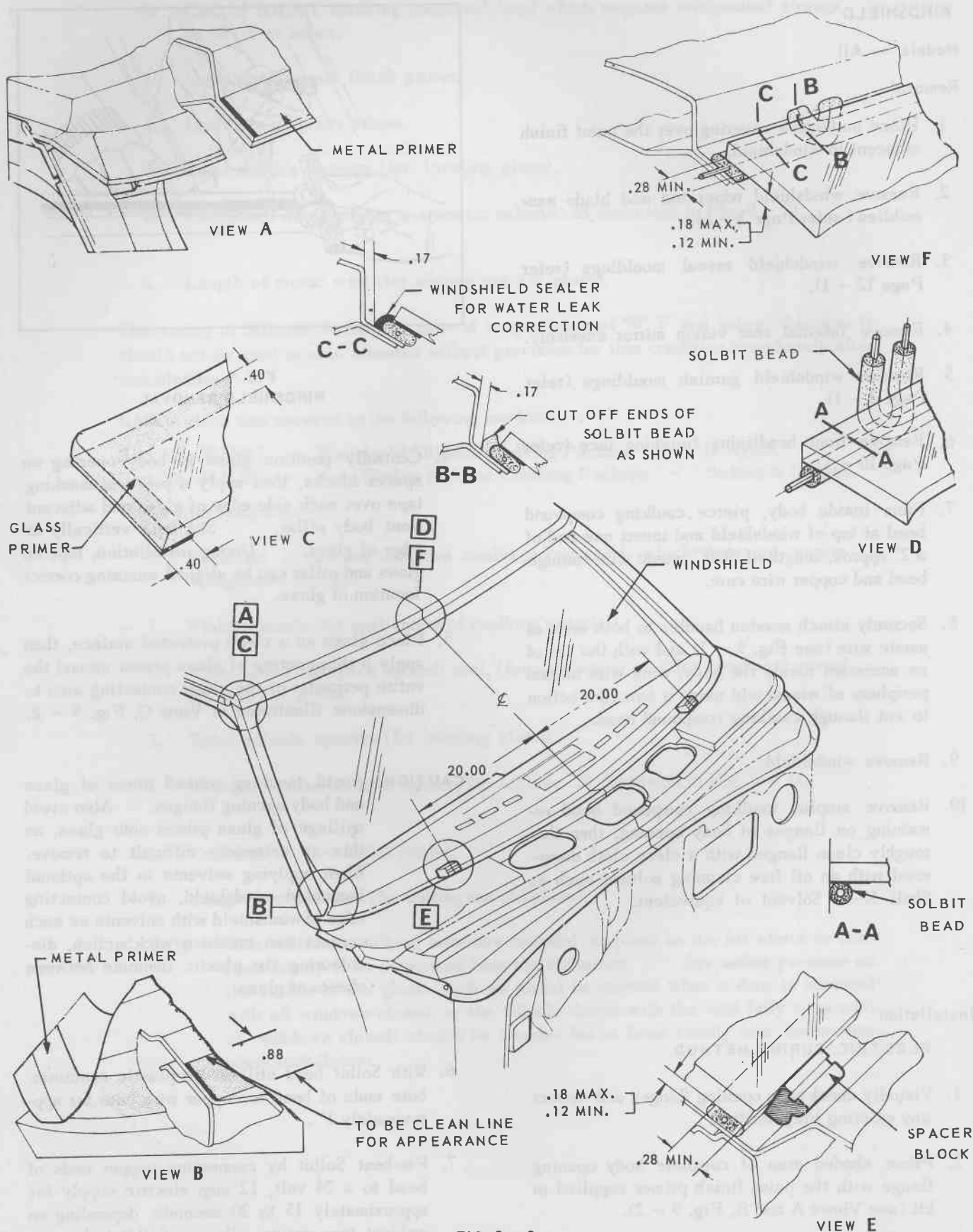


FIG. 9 - 2
WINDSHIELD INSTALLATION
(ELECTRIC CURING METHOD)

8. Apply Solbit bead to inner periphery of windshield commencing with approximately 3 ins. of bead protruding above top edge of windshield. Continue positioning bead around perimeter of windshield, terminating at top centre.

NOTE: During this process, care must be taken not to flatten the Solbit bead or indent it with finger marks as this will lead to subsequent leaks

CAUTION: Avoid touching glass primed surface. If this does occur, reprime.

9. Twist both ends of bead together, as illustrated in View D, Fig. 9 - 2, gently kneading beads together at the crossover, creating amalgamation of the material.

10. With the aid of an assistant, locate windshield centrally in body opening on spacer blocks.

WARNING: Ensure that windshield does not strike body opening during installation. Chipped edges can cause subsequent breakage of windshield. Also ensure that windshield is not installed with edges contacting reveal moulding clips.

11. Connect ends of copper wire core to a 24 volt, 12 amp electric supply for 12 minutes, ensuring that electric connectors are insulated to protect paint finish.

12. As the Solbit softens, apply even pressure over complete windshield to obtain correct compression of Solbit (see View F, Fig. 9 - 2).

13. Disconnect electric supply and cut off ends of Solbit bead (see Section B-B, View F, Fig. 9 - 2).

14. Water test windshield by applying a moderate spray of water around edges of windshield, gradually working water spray up from bottom of windshield to top.

NOTE: Avoid using a strong jet of water directly onto the edges of windshield.

15. If any water leaks are evident, they can be corrected by thoroughly drying out and applying windshield sealer to the leak area.

16. Dry off water around edges of windshield then apply VALVOLINE 506 TECTYL rust inhibitor around all flanges of body opening, between edge of Solbit bead and outer edge of moulding clips.

17. Install front headlining finishing lace (refer Page 10 - 1).

18. Install windshield gamish mouldings (refer Page 3 - 1).

19. Install internal rear vision mirror assembly.

20. Install windshield reveal mouldings (refer Page 12 - 1)

21. Install windshield wiper rod and blade assemblies (refer Page 3 - 1).

Installation

AIR CURING METHOD

THE CURING OF SILICONE SEALANT IS SLOW AT TEMPERATURES OF 50° F AND BELOW, THEREFORE IT SHOULD NOT BE USED IN COLD CLIMATES WITHOUT PROVISION FOR THIS CONDITION IMMEDIATELY AFTER INSTALLATION.

1. Visually check body opening flange and correct any existing irregularities.
2. Prime shaded area of all body opening flanges with the paint finish primer supplied in the Kit (see Views A and B, Fig. 9 - 3).
3. Position two spacer blocks at locations illustrated in View C, Fig. 9 - 3.
4. Centrally position glass in body opening on spacer blocks, then apply a piece of masking tape over each side edge of glass and adjacent front body pillar. Slit tape vertically at edge of glass. During installation, tape on glass and pillar can be aligned, ensuring correct location of glass.
5. Place glass on a clean protected surface then water clean and dry inner surface of glass to which the caulking compound is to be applied.
6. Remove backing material protecting contact adhesive from foam rubber seal.
7. Evenly apply seal .187" inboard of edge of glass (see View D, Fig. 9 - 3).

CAUTION: Avoid touching cleaned area of glass to which adhesive caulking material is to be applied. If this does occur, reclean.

8. Remove cap and protective end cover from tube of adhesive caulking compound and install nozzle. Insert tube into hand operated household type G.E.N. caulking gun, available from Dow Corning Aust. or their Agencies.
9. Apply a .38" high smooth continuous bead of adhesive caulking material to inside surface of glass, between seal and edge of glass (see View E, Fig. 9 - 3) using cut-out in end of plastic nozzle against edge of glass to guide application of material.

IMPORTANT: Due to the fast curing characteristics of adhesive caulking material, glass installation should be completed within 15 minutes from start of application of material to glass.

10. With the aid of an assistant, locate windshield centrally in body opening on spacer blocks.

WARNING: Ensure that windshield does not strike body opening during installation. Chipped edges can cause subsequent breakage of windshield. Also, ensure that windshield is not installed with edges contacting reveal moulding clips.

11. Press glass firmly to bed caulking material to dimensions illustrated in View C and F, Fig. 9 - 3.
12. Run a flat bladed screwdriver or spatula around edge of glass, ensuring that no gaps in caulking compound exist between rubber seal and edge of glass (see View F, Fig. 9 - 3).
13. Water test windshield immediately, using a moderate water spray. If any water leaks are encountered, apply additional material to leak area using a flat-bladed screwdriver or spatula to work caulking material into leak point to correct leak.

CAUTION: Do not run a heavy stream of water directly on caulking material while the material is still soft.

14. Dry off water around edges of windshield then apply VALVOLINE 506 TECTYL rust inhibitor around all flanges of body opening, between edge of caulking material and outer edge of moulding clips.

15. Install windshield reveal mouldings (refer Page 12 - 1).
16. Install windshield wiper rod assemblies (refer Page 3 - 1).
17. Install headlining finishing lace (refer Page 10 - 1).
18. Install front body pillar gamish panels (refer Page 3 - 1).
19. Install internal rear vision mirror.

BACK WINDOW

Models - Sedan and Coupe

Back window removal and electric or air curing methods of installation are similar to those employed for windshield; however, on Statesman models, the application of windshield sealer along lower edge of rear body opening, adjacent to front of back panel upper (see View F, Fig. 9 - 4) is also required.

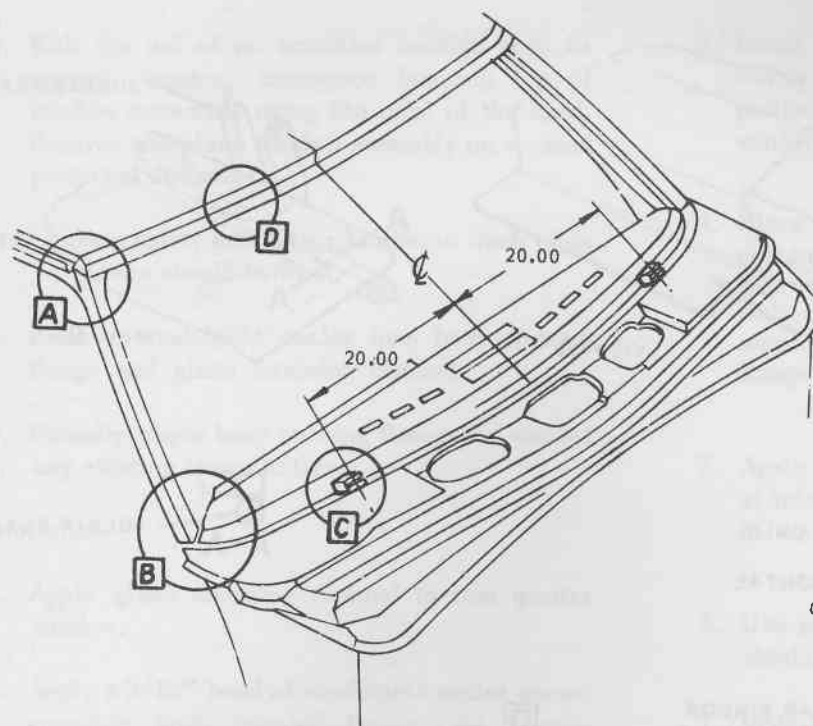
WARNING: The Solbit Kit available from Bostik Aust. and the Silicone Caulking Packages available from NASCO, which have been referred to in the preceding instructions, are the only materials recommended by GMH for windshield and rear window installation.

REAR QUARTER WINDOW

Models - Station Sedan

Removal

1. Remove rear quarter upper and lower reveal mouldings (refer Page 12 - 1).
2. From inside body, ease retaining lip of glass retaining channel away from body opening flange, using a putty knife or equivalent.



RUBBER SEAL

VIEW D

ADHESIVE
CAULKING COMPOUND

VIEW E

TO BE CLEAN LINE
FOR APPEARANCE

PAINT FINISH PRIMER

.88

VIEW A

VIEW B

VIEW F

.28 MIN.

.18 MAX.
.12 MIN.

SPACER BLOCK

VIEW C

FIG. 9 - 3
WINDSHIELD INSTALLATION
(AIR CURING METHOD)

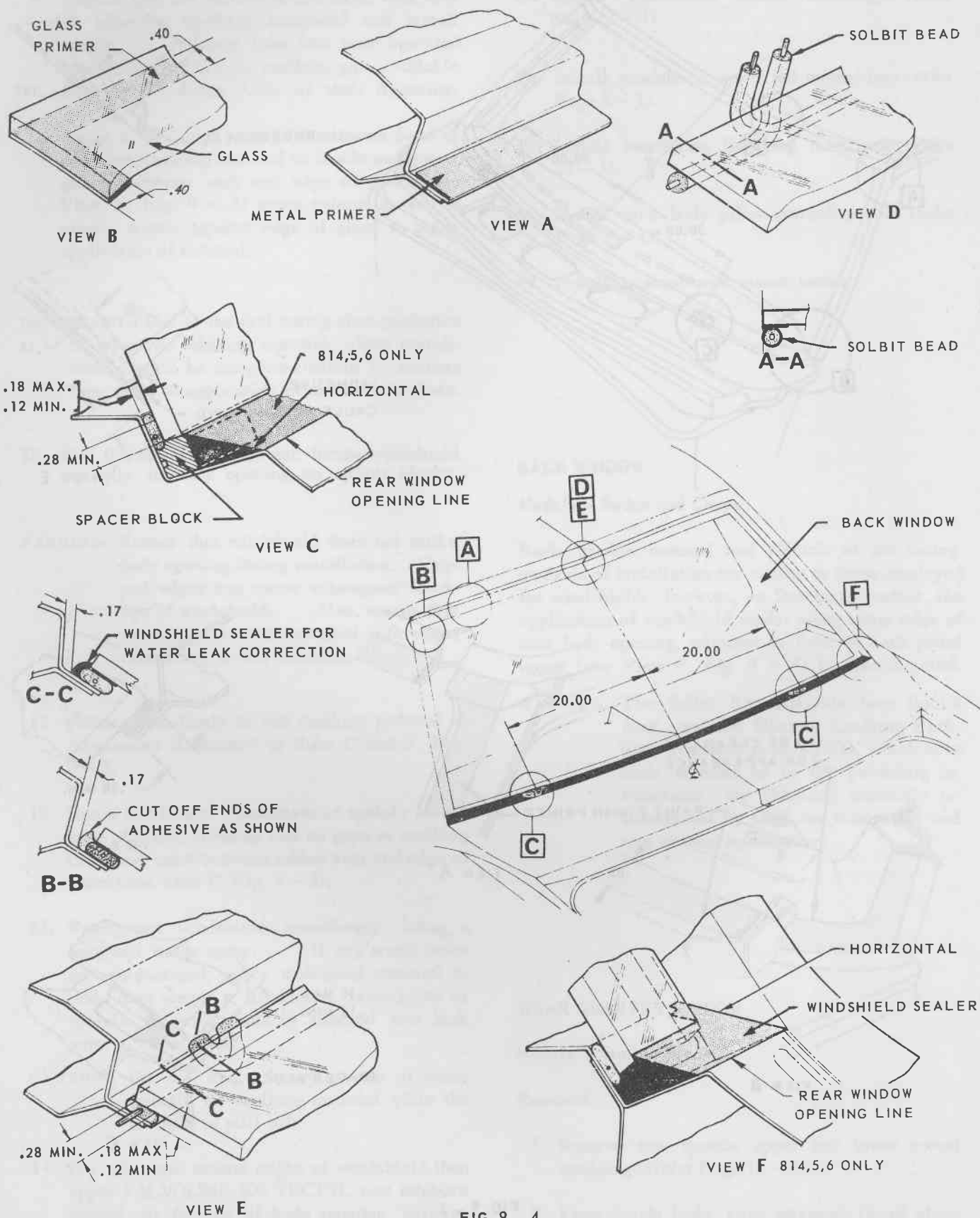


FIG. 9 - 4
BACK WINDOW INSTALLATION
MODELS - SEDAN & COUPE

3. With the aid of an assistant outside body to support window, commence bumping top of window outwards, using the palm of the hand. Remove and place window assembly on a clean protected surface.

NOTE: As a safety precaution, leather or thick cloth gloves should be worn.

4. Remove windshield sealer from body opening flange and glass retaining channel.
5. Visually check body opening flange and correct any existing irregularities.

Installation

1. Apply glass retaining channel to rear quarter window.
2. Apply a 5/16" bead of windshield sealer around complete body opening flange (see Section A-A, Fig. 9 - 5).

3. Insert a strong cord inside body opening flange cavity of glass retaining channel, leaving ends protruding centrally at inside upper edge of window assembly (see B, Fig. 9 - 5).

4. Place window and channel assembly in window opening and while pressing assembly firmly from outside body, have an assistant inside body slowly pull cord, seating lip of rubber retaining channel over complete body opening flange.

5. Apply windshield sealer between glass and lip of retaining channel, around complete perimeter of window (see C, Section A-A, Fig. 9 - 5).

6. Use white spirits to clean off any excess windshield sealer from around window.

7. Install rear quarter, upper and lower reveal mouldings (refer Page 12 - 1).

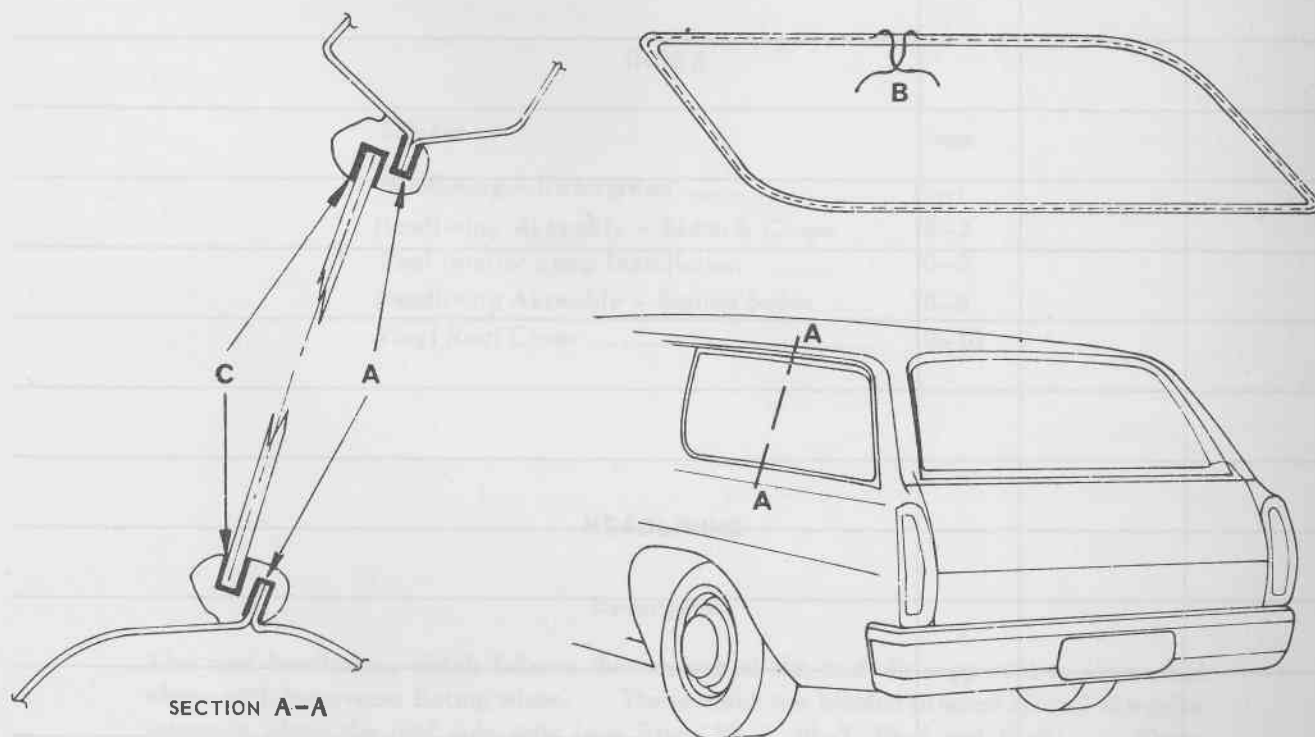


FIG. 9 - 5

REAR QUARTER WINDOW INSTALLATION
MODEL - STATION SEDAN

SECTION 10

ROOF

INDEX

Subject	Page
Headlining - Description	10-1
Headlining Assembly - Sedan & Coupe ...	10-2
Roof Interior Lamp Installation	10-3
Headlining Assembly - Station Sedan	10-8
Vinyl Roof Cover	10-10

HEADLINING

Description

The roof headlining, which follows the contour of the roof, is supported in its curved shape with transverse listing wires. These wires are located in holes spaced at regular intervals along the roof side rails (see Figs. 10-2, 10-3, 10-4 and 10-8). These listing wires are inserted through a series of stitched listing pockets, the stitch lines of which are visible across the headlining. The edges of the headlining are cemented to the front and on all except Station Sedans, the rear headlining retainers and roof side rails. The finishing lace attached to the front and rear headlining retainers and door openings assist in retaining and protecting the headlining.

NOTE: Clean hands are essential when handling body interior trim.

HEADLINING ASSEMBLY

Models - Sedans and Coupes

Removal

1. Disconnect battery ground cable and remove interior lamp(s) (see Fig. 10-1) by:
 - (a) Placing fingers between outer edge of lamp lens and base, pulling lens away from base.
 - (b) Remove lamp and on dome lamp base, straighten roof support tangs securing base to roof support (see View A, Fig. 10-1).
 - (c) On rear quarter interior lamps, remove screws securing lamp base to rear quarter inner panel upper (see Views B and F, Fig. 10-1)
 - (d) Disengage lamp holders from lamp base (see Views C, D & E, Fig. 10-1) then remove base.
2. Remove sun visors and interior rear vision mirror, coat hooks and body pillar garnish panels.
3. Remove front and rear headlining retainer finishing lace (see Views A and F, Figs. 10-2 to 10-4 inclusive).
4. Remove rear seat cushion, back and rear parcel shelf (refer pages 8-1 and 4-1).
5. Remove finishing lace protecting side edges of headlining (see Section A-A, Figs. 10-2 to 10-4 inclusive).
6. Carefully ease off outer edges of headlining cemented to roof side rails and front and rear headlining retainers.
7. Disconnect ends of Nos. 1, 2, 5 and 4 listing wires from roof side rails.
8. Ease back tabs securing No. 3 listing wire to roof support (see View D, Figs. 10-2 to 10-4 inclusive), disengage ends of listing wire, then remove headlining assembly.
9. Clean or smooth off any hardened cement from roof side rails and front and rear headlining retainers.

Installation

1. If the listing wires have been removed or if a new headlining is to be installed, install listing wires in their correct listing pockets.

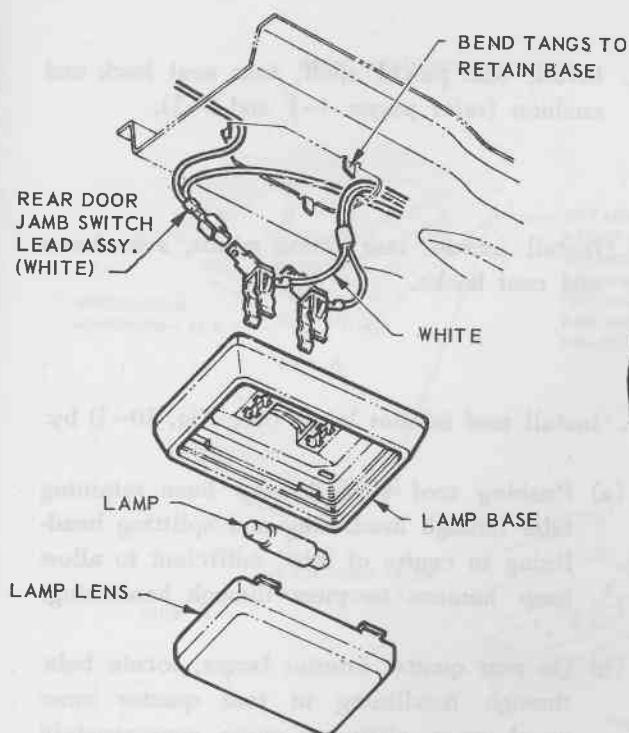
NOTE: Listing wires are identified by a daub of coloured paint on end of wires (see Figs. 10-2, 10-3, 10-4 and 10-8).

2. Apply a 2" band of adhesive cement around outer edge of headlining.
3. Apply adhesive cement to roof side rails and front and rear headlining retainers.
4. Install ends of No. 3 listing wire into roof side rails.

NOTE: If a new headlining is being installed, it may be necessary to trim listing pockets away from ends of listing wires sufficient to clear roof side rails.

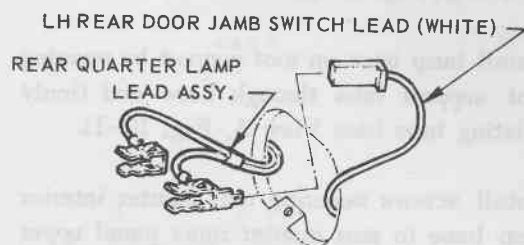
5. Pierce No. 3 listing pocket in line with roof support clinch over tabs, locate tabs under listing wire and bend tabs over, securing wire to roof support (see View D, Figs. 10-2 to 10-4 inclusive).
6. Install ends of Nos. 2, 1, 4 and 5 listing wires into roof side rails.
7. Locate front and rear ends of headlining centrally into headlining retainers.

NOTE: When positioning headlining, it is important that the stitched seams remain straight and aligned with each other across the roof.



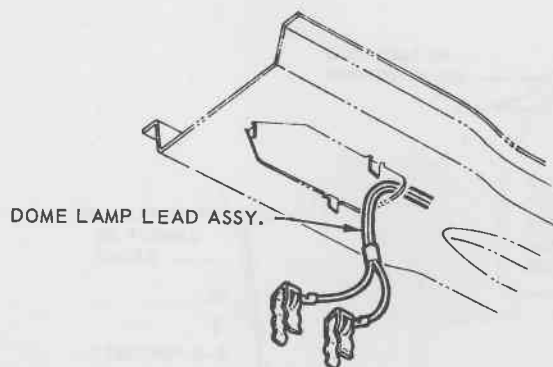
DOMELAMP & WIRING FOR 811,812,815,816

VIEW A



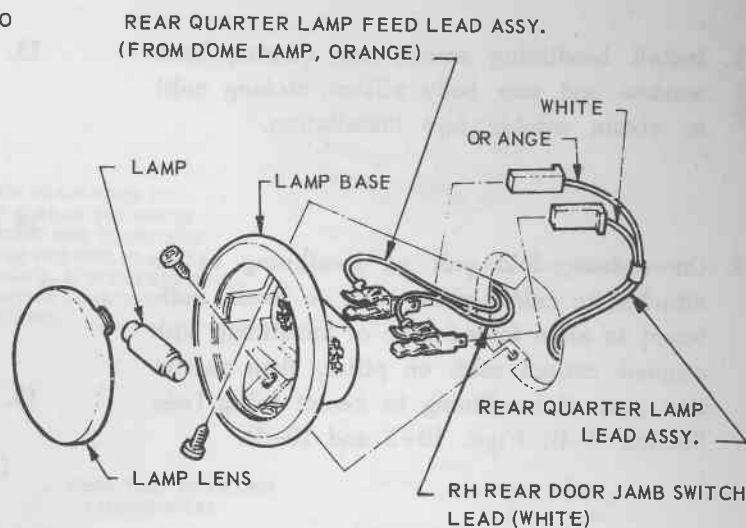
REAR QUARTER LAMP WIRING LH SIDE 814

VIEW C



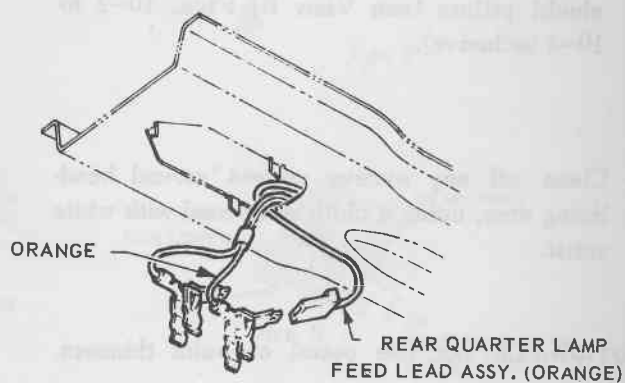
DOMELAMP WIRING FOR 801,802,803,804

VIEW E



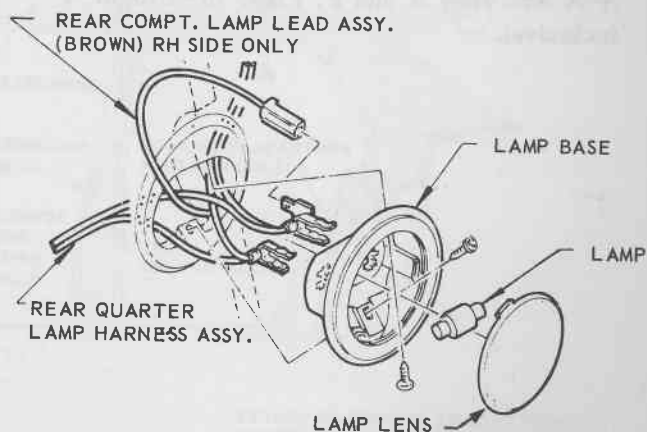
REAR QUARTER LAMP AND WIRING RH SIDE 814

VIEW B



DOMELAMP WIRING FOR 814

VIEW D



REAR QUARTER LAMP & WIRING - COUPES

VIEW F

Fig. 10-1
ROOF INTERIOR LAMP INSTALLATION

8. Install headlining around rear quarter, back window and rear body pillars, nicking radii to obtain wrinkle free installation.

9. On sedans, fold part of headlining to be attached to centre pillar back on itself, sufficient to align folded edge of headlining with original cement mark on pillar, then cement this part of headlining to centre pillar (see Section B-B, Figs. 10-2 and 10-4).

10. Install edges of headlining to roof side rails, repeating No. 9 installation instruction for installing front corners of headlining to windshield pillars (see View B, Figs. 10-2 to 10-4 inclusive).

11. Clean off any excess cement around headlining area, using a cloth moistened with white spirit.

CAUTION: Do not use petrol or paint thinners.

12. Install finishing lace around door aperture flanges and headlining retainers (see Section A-A and View A and F, Figs. 10-2 to 10-4 inclusive).

13. Install rear parcel shelf, rear seat back and cushion (refer pages 4-1 and 8-1).

14. Install interior rear vision mirror, sun visors and coat hooks.

15. Install roof interior lamps (see Fig. 10-1) by:

(a) Pushing roof support lamp base retaining tabs through headlining and splitting headlining in centre of tabs, sufficient to allow lamp harness to pass through headlining.

(b) On rear quarter interior lamps, locate hole through headlining in rear quarter inner panel upper, slitting a cross, approximately 1" long, in centre of hole.

(c) Pull lamp harness through headlining, then install lamp holders in lamp base (see Views C, D or E, Fig. 10-1).

(d) Install lamp base on roof support by passing roof support tabs through base and firmly twisting tabs (see View A, Fig. 10-1).

(e) Install screws securing rear quarter interior lamp base to rear quarter inner panel upper (see Views B and F, Fig. 10-1).

(f) Install lamp and lens to lamp base.

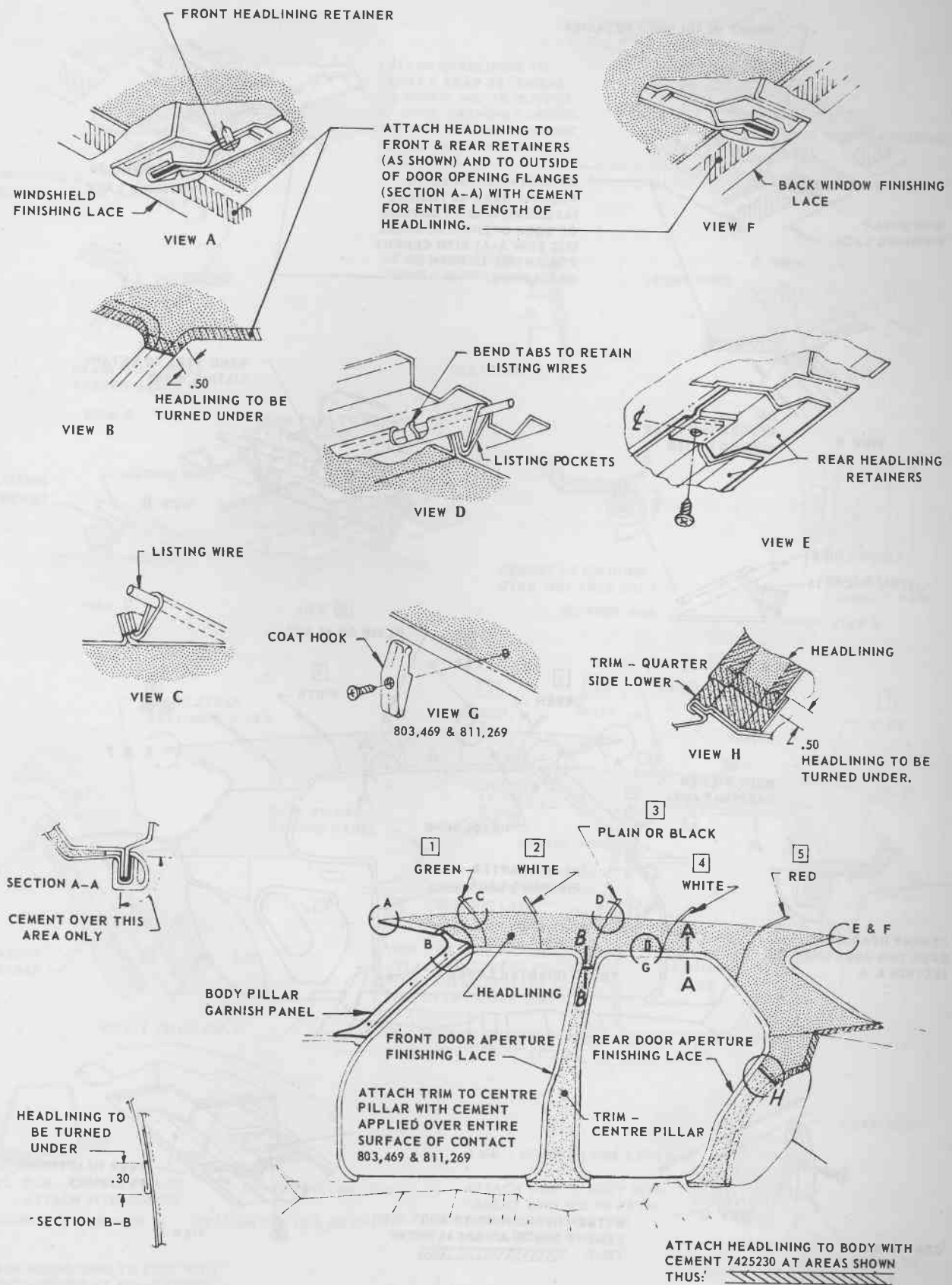


Fig. 10-2
HEADLINING INSTALLATION
MODELS - ALL SEDANS except STATESMAN

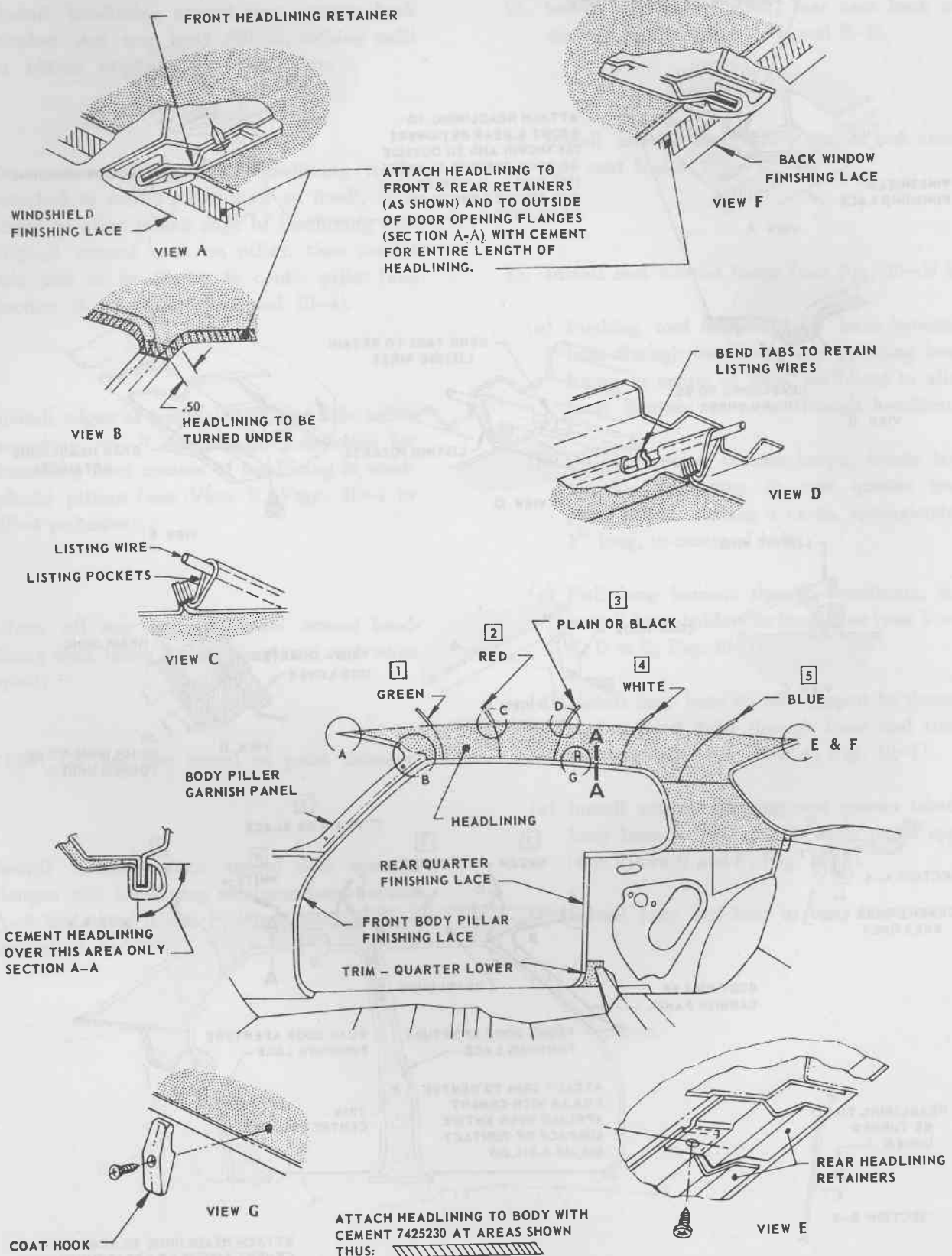


Fig. 10-3
HEADLINING INSTALLATION
MODELS - COUPE

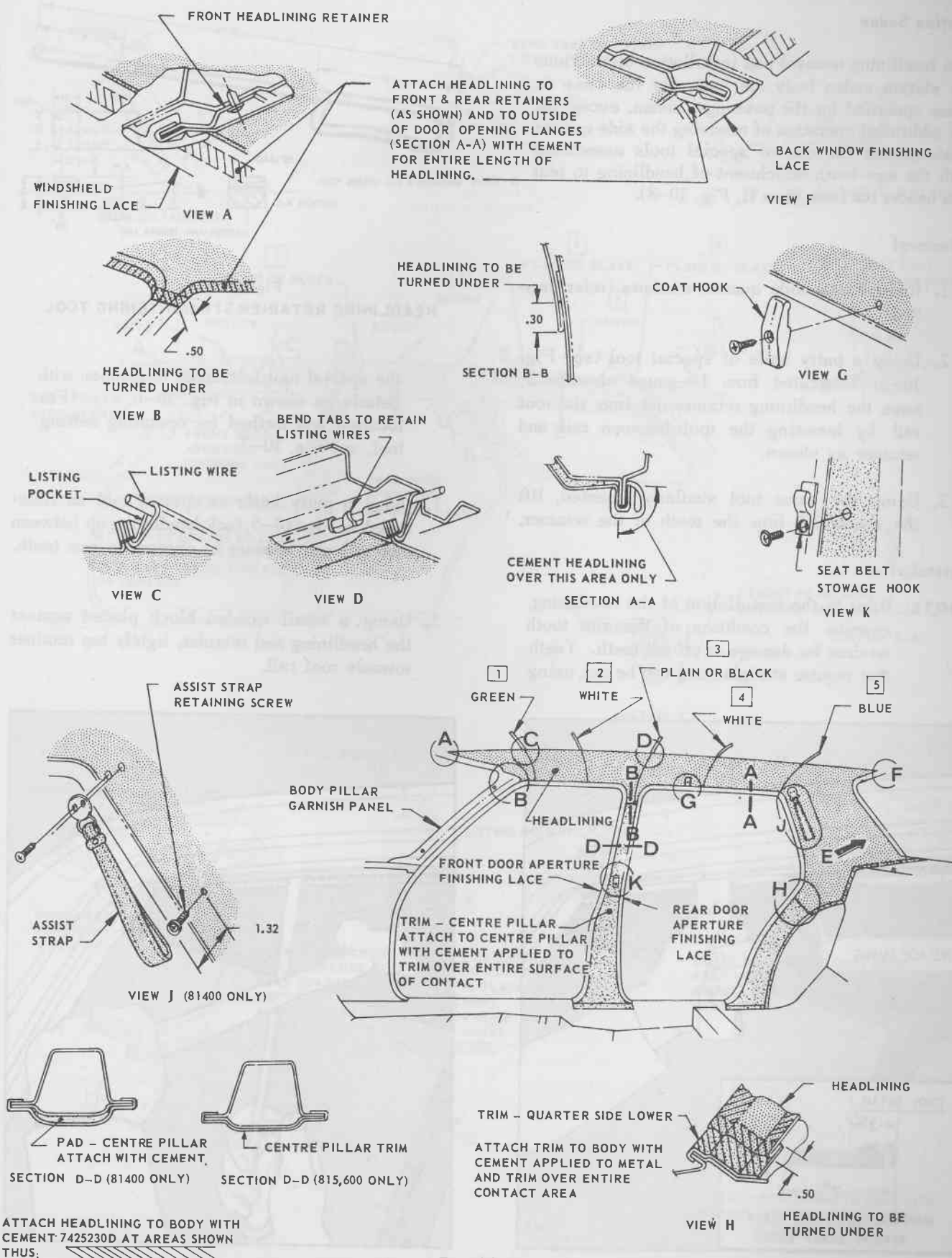


Fig. 10-4
HEADLINING INSTALLATION
MODEL - STATESMAN

Station Sedan

The headlining removal and installation instructions for station sedan body are basically the same as those specified for the passenger sedan, except for the additional operation of removing the side quarter windows and the use of special tools associated with the saw tooth attachment of headlining to rear roof header bar (see View H, Fig. 10-8).

Removal

1. Remove rear side quarter windows (refer page 9-1).
2. Using a putty knife or special tool (see Fig. 10-5) fabricated from 16-gauge sheetmetal, ease the headlining retainer out from the roof rail by inserting the tool between rail and retainer as shown.
3. Using the same tool similarly inserted, lift the headlining from the teeth of the retainer.

Installation

NOTE: Prior to the installation of the headlining, examine the condition of the saw tooth retainer for damage or off-set teeth. Teeth that require straightening can be set, using

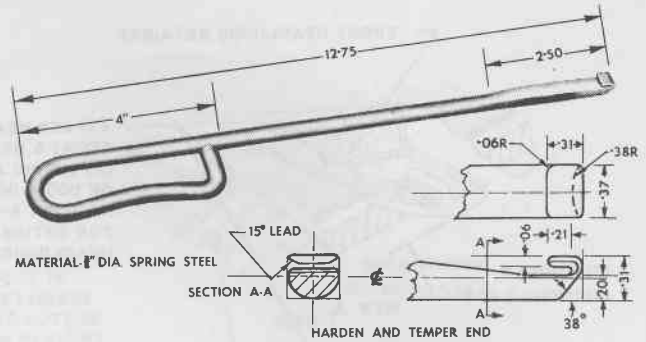


Fig. 10-6
HEADLINING RETAINER STRAIGHTENING TOOL

the special tool fabricated to conform with details as shown in Fig. 10-6. (For location and method for operating setting tool, see Fig. 10-7.

1. Using a putty knife or special tool as illustrated in Fig. 10-5, tuck headlining up between roof rail and retainer to engage on saw teeth.
2. Using a small wooden block placed against the headlining and retainer, lightly tap retainer towards roof rail.

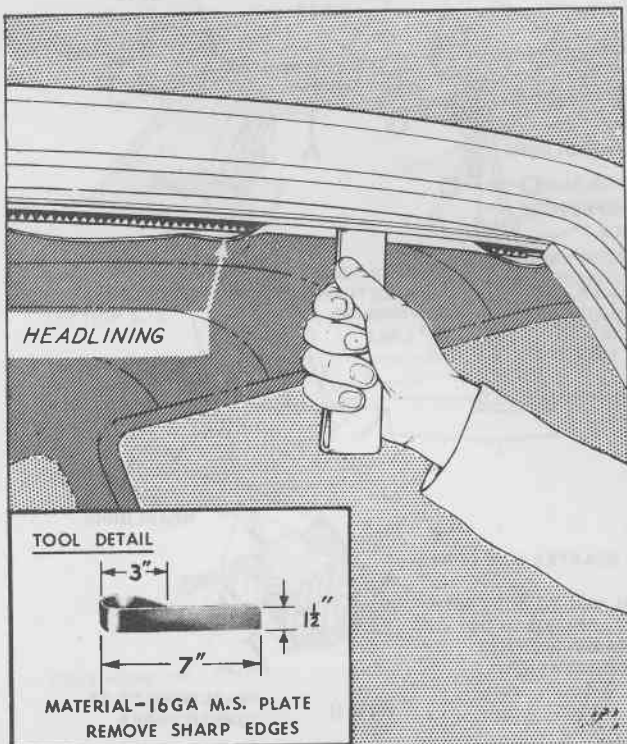


Fig. 10-5
HEADLINING REMOVAL AND INSTALLATION

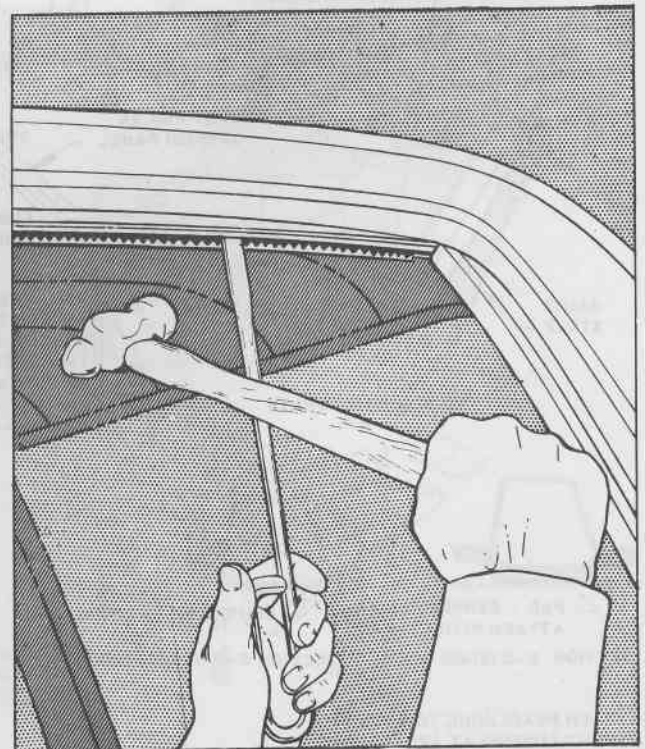


Fig. 10-7
HEADLINING RETAINER STRAIGHTENING

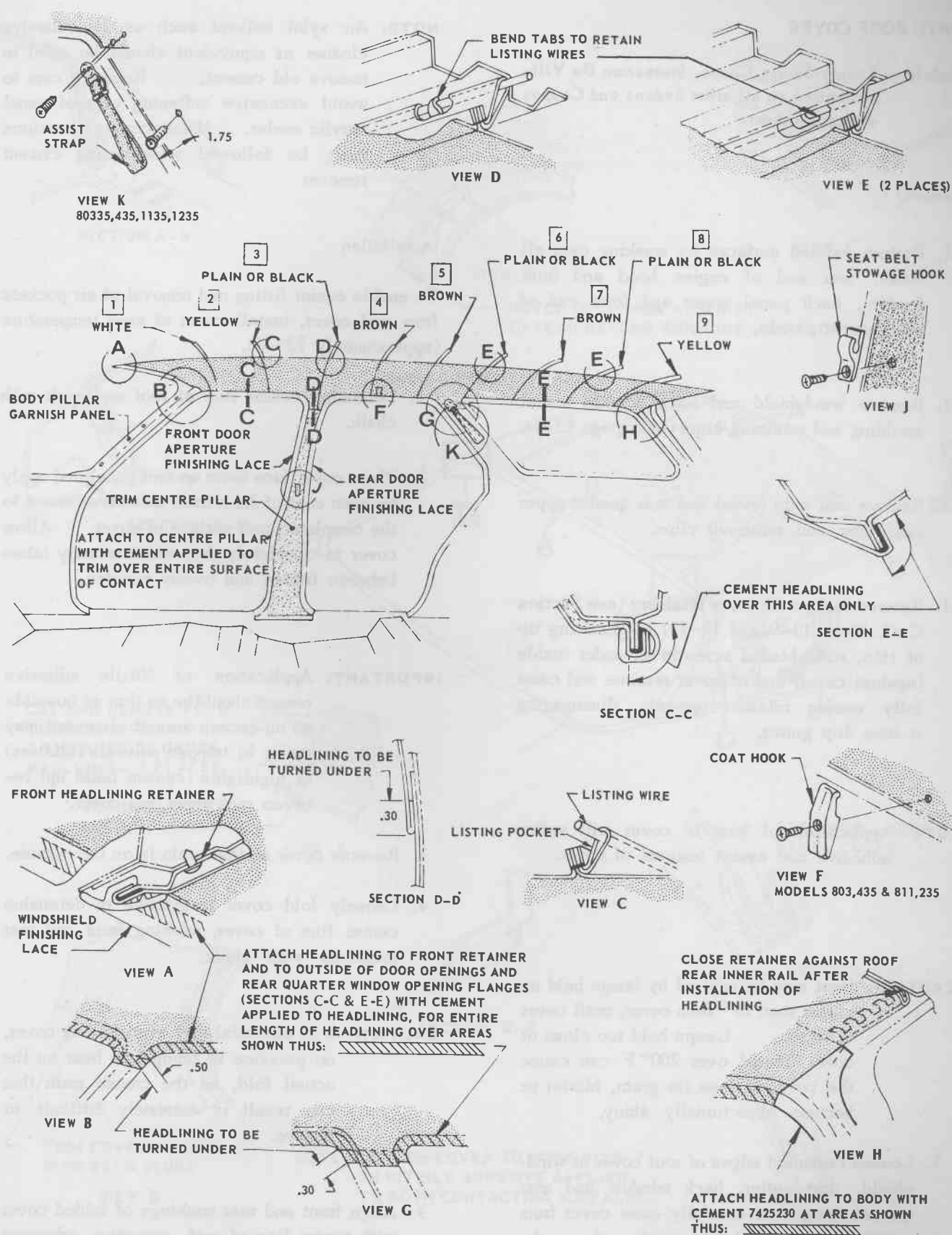


Fig. 10-8
HEADLINING INSTALLATION
MODEL - STATION SEDAN

VINYL ROOF COVER

Models - Luxury Sports Coupe, Statesman De Ville and option on all other Sedans and Coupes except Belmont.

Removal

1. Protect painted surfaces by masking over all doors, rear end of engine hood and front fenders, back panel upper and front end of rear quarter panels.
2. Remove windshield and back window reveal moulding and retaining clips (refer page 12-1).
3. Remove roof side reveal and rear quarter upper mouldings and retaining clips.
4. Remove roof panel cover retainers (see Section C-C, Figs. 10-9 and 10-10) by inserting tip of thin, wide bladed screwdriver under inside (against cover) end of cover retainer and carefully easing retainer upwards, disengaging it from drip gutter.

NOTE: Application of heat to cover will soften adhesive and assist removal of cover.

CAUTION: Heat may be applied by lamps held no closer than 18" from cover, until cover is warm. Lamps held too close or cover heated over 200°F can cause the cover to lose its grain, blister or become objectionably shiny.

5. Loosen cemented edges of roof cover at windshield, drip gutter, back window and rear quarter area; then carefully ease cover from remaining cemented areas of roof panel.
6. Remove or smooth down any existing hardened cement from roof panel or inside of cover.

NOTE: An xylol solvent such as 3M adhesive cleaner or equivalent should be used to remove old cement. Exercise care to avoid excessive softening of roof panel acrylic sealer. Manufacturers directions must be followed when using cement remover.

Installation

To enable easier fitting and removal of air pockets from roof cover, install cover at room temperature (approximately 72° F).

1. Determine centre line of roof and mark with chalk.
2. Place cover face down on roof panel and apply an even coat of 3M Nitrile adhesive cement to the complete inner surface of cover. Allow cover to completely dry, which usually takes between fifteen and twenty minutes.

IMPORTANT: Application of Nitrile adhesive cement should be as thin as possible as an excess amount of cement may result in trapped solvents (blisters) or highlights (cement build up) between roof panel and cover.

3. Reverse cover so that grain is on the outside.
4. Loosely fold cover lengthwise to determine centre line of cover, marking front and rear locations with chalk.

CAUTION: It is essential that when folding cover, no pressure is brought to bear on the actual fold, as the crease mark that can result is extremely difficult to remove.

5. Align front and rear markings of folded cover with centre line of roof, ensuring adequate over hang of material at windshield and back window reveal moulding weld studs (see Sections A-A and B-B, Figs. 10-9 and 10-10).

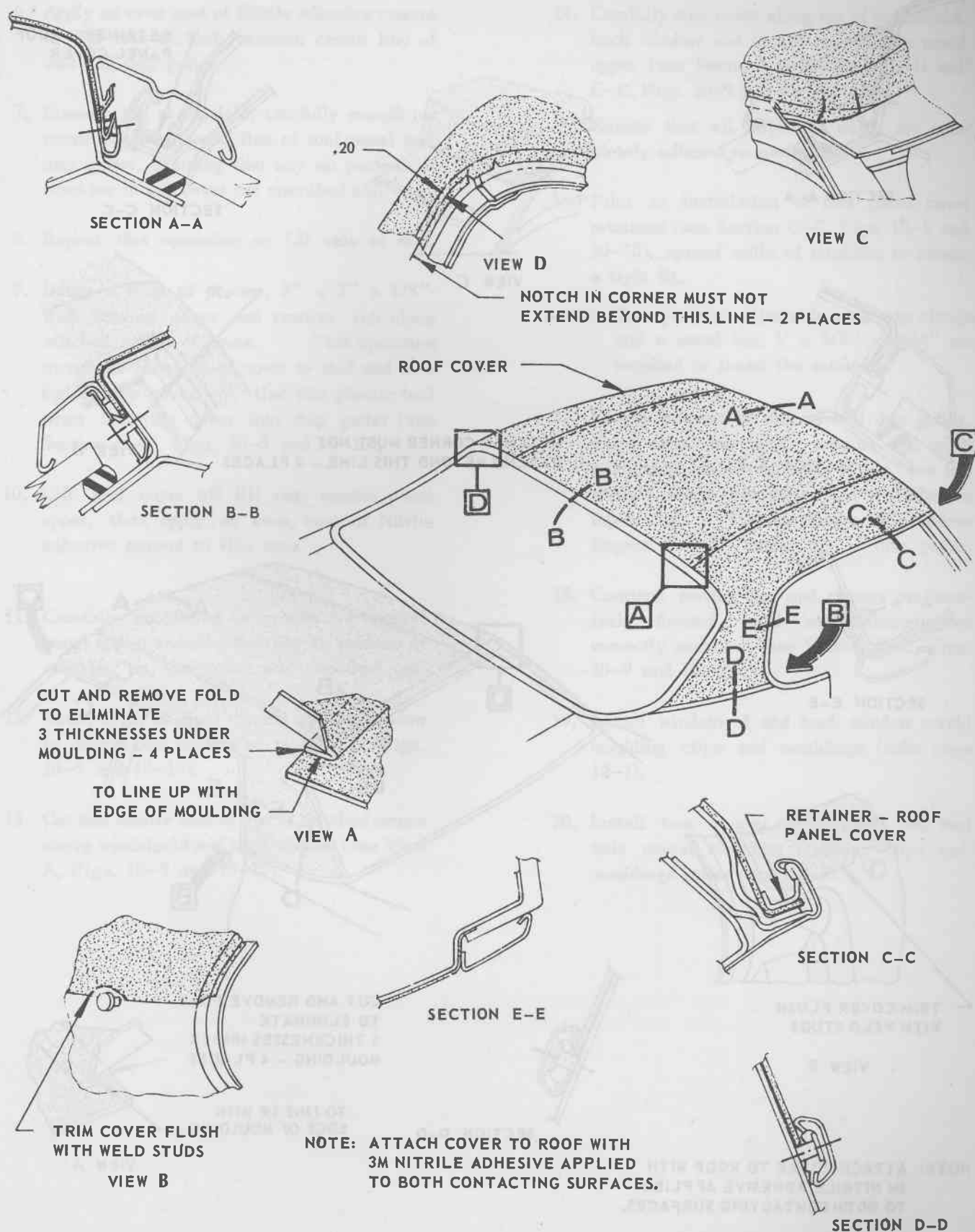


FIG. 10-9
VINYL ROOF COVER INSTALLATION
MODEL - LUXURY SPORTS COUPE

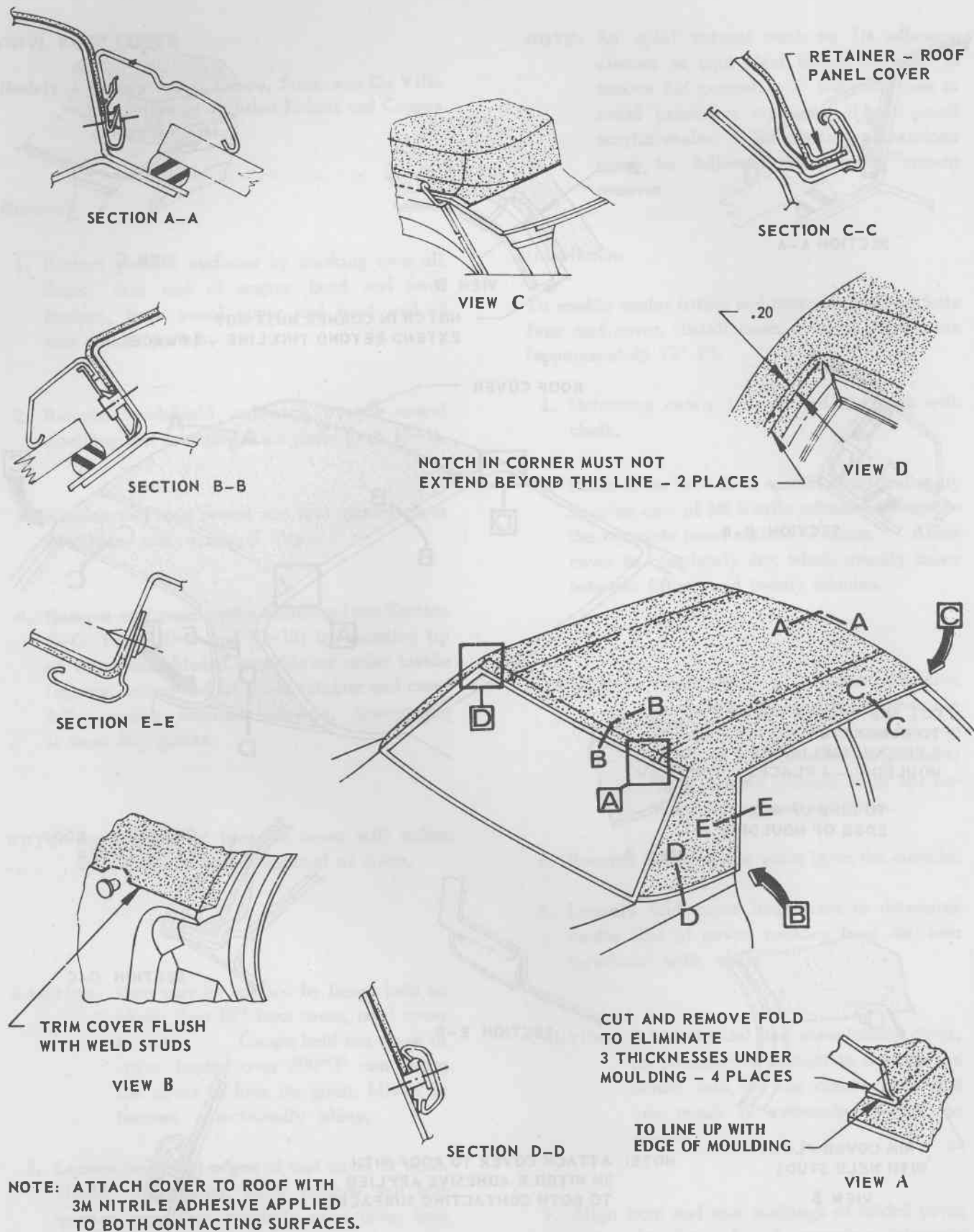


FIG. 10-10
VINYL ROOF COVER INSTALLATION
MODEL - STATESMAN DE VILLE

6. Apply an even coat of Nitrile adhesive cement to RH side of roof, between centre line of roof and drip gutter.
 7. Commencing at the fold, carefully smooth out cover between centre line of roof panel and drip gutter, ensuring that any air pockets or wrinkles in the cover are smoothed out.
 8. Repeat this operation on LH side of roof.
 9. Using a strip of plastic, 8" x 2" x 1/8" with rounded edges and corners, rub along stitched seams of cover. This operation increases adhesion of cover to roof and also tightens up cover. Use this plastic tool when inserting cover into drip gutter (see Section C-C, Figs. 10-9 and 10-10).
 10. Lift roof cover off RH rear quarter panel upper, then apply an even coat of Nitrile adhesive cement to this area.
 11. Carefully smooth out cover over rear quarter panel upper, ensuring that any air pockets or wrinkles in the cover are smoothed out.
 12. Notch cover at upper corners of back window to dimensions illustrated in View D, Figs. 10-9 and 10-10).
 13. Cut and remove fold at end of stitched seams above windshield and back window (see View A, Figs. 10-9 and 10-10).
 14. Carefully trim cover along top of windshield, back window and around rear quarter panel upper (see Sections A-A, B-B, D-D and E-E, Figs. 10-9 and 10-10).
 15. Ensure that all edges of cover are completely adhered to roof panel.
 16. Prior to installation of roof panel cover retainers (see Section C-C, Figs. 10-9 and 10-10), spread walls of retainers to ensure a tight fit.
- NOTE:** Two pairs of adjustable vice grip clamps and a metal bar, 1' x 3/8" x 3/16" are required to insert the retainers.
17. Locate retainer in rear of roof drip gutter, place metal bar inside retainer and apply adjustable clamps at ends of bar, one jaw located below drip gutter and the other on top of bar. Tighten clamps until retainer fingers "click" under lip of drip gutter.
 18. Continue moving bar and clamps progressively forward, until both retainers are correctly installed (see Section C-C, Figs. 10-9 and 10-10).
 19. Install windshield and back window reveal moulding clips and mouldings (refer page 12-1).
 20. Install rear quarter upper panel and roof side reveal moulding retaining clips and mouldings (refer page 12-1).

SECTION 11

SHEET METAL

INDEX

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Front End Panel Assembly	11-5	Cable – Engine Hood Release ..	11-6
Engine Hood	11-5	Hinge Assembly – Engine Hood	11-6
Lock Plate & Support Assembly ..	11-5		

SHEET METAL

Description

The front end sheet metal is attached to the body and front end partial frame and comprises the engine hood, front fender, engine skirt, radiator support and front end panel assemblies (see Figs. 11-1, 11-2 and 11-3).

The engine hood assembly is of double skin construction. It is attached to spring loaded hinges, which in turn, are attached to the engine skirt panels. The engine hood hinge springs are positioned so they assist in raising the engine hood and support it in the fully open position.

A control cable knob situated below the RH side of the instrument panel, controls the concealed hood lock release catch (see view A, Fig. 11-3). The engine hood, when released from the locked position, engages on a secondary safety catch. To open the hood following its release from the locked position, insert the fingers beneath leading edge of engine hood, then press upwards on the catch.

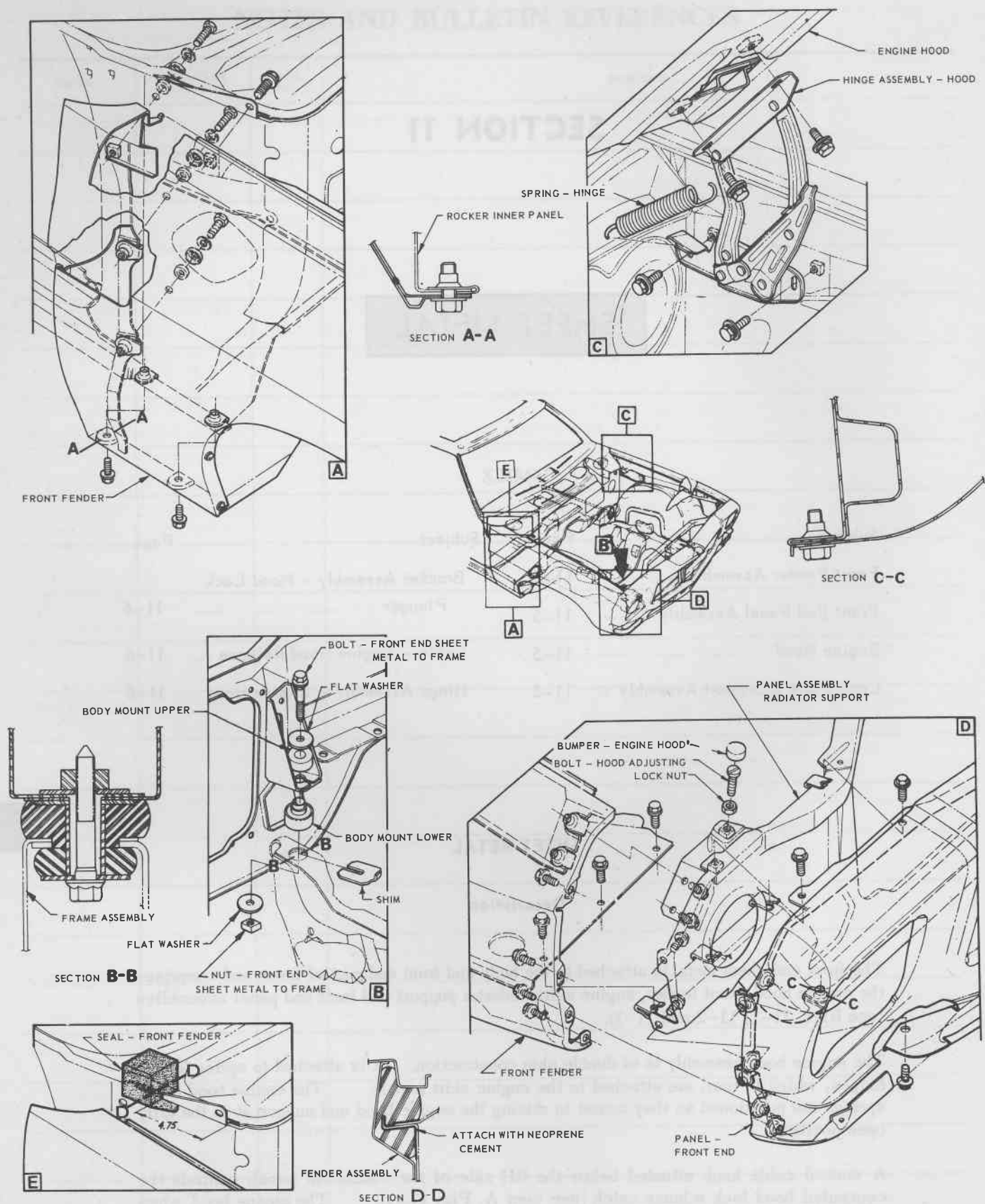


Fig. 11-1
SHEET METAL INSTALLATION

With the engine hood and front bumper bar removed, and the engine hood release cable and head and parking lights disconnected, the front fender and skirt panel, radiator support and front end panel assemblies can be removed from the vehicle as one assembly (see views A, B, & D, Fig. 11-1).

During assembly, a .020" shim is installed between upper flange of front end partial frame and body mount upper (see Section B-B, View B, Fig. 11-1). Horizontal adjustment of the front end sheet metal can be effected by the inclusion or deletion of these shims.

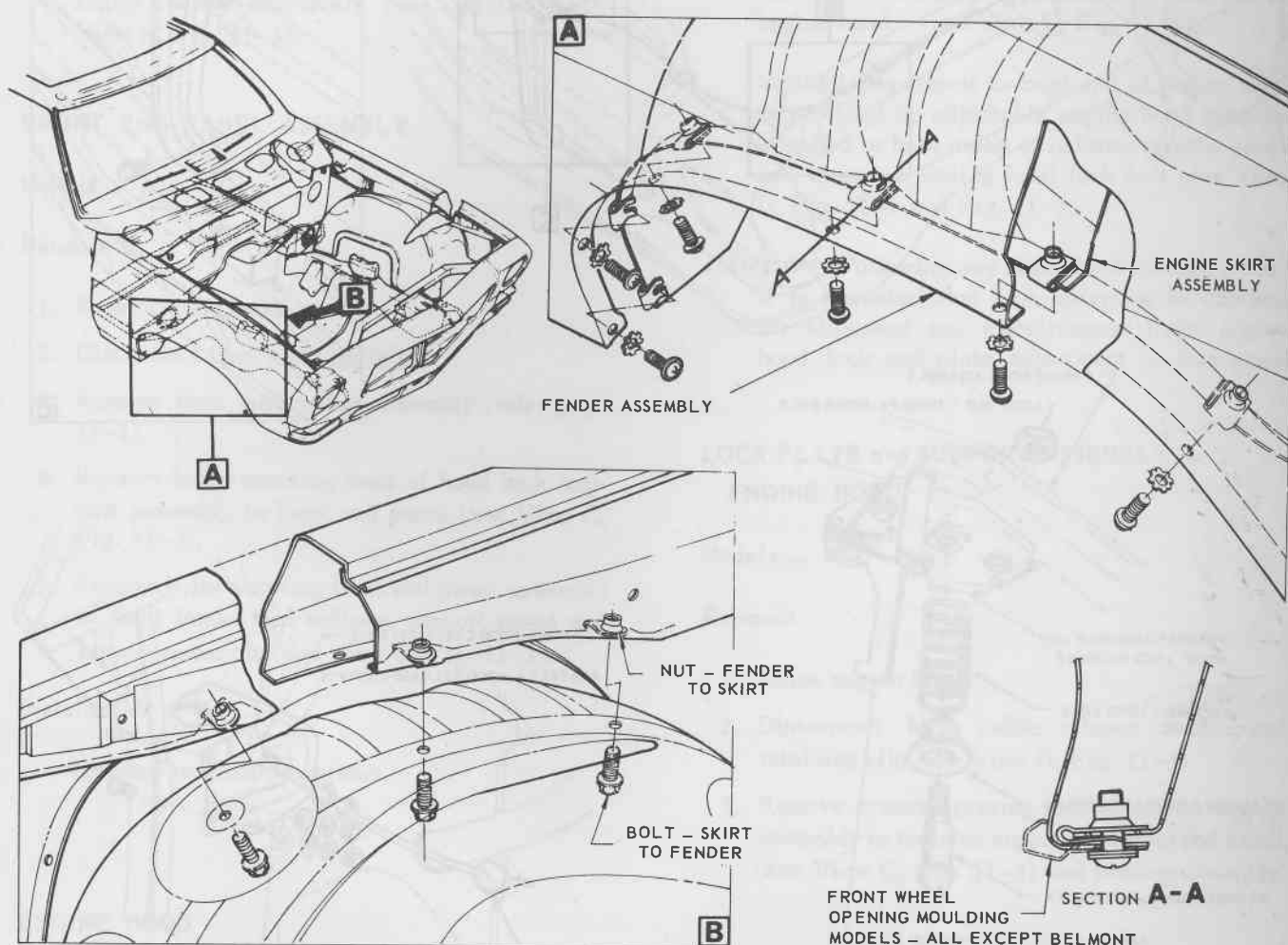


Fig. 11-2
FRONT FENDER ILLUSTRATION

FRONT FENDER ASSEMBLY

Models - All

Removal

1. Raise engine hood.
2. Remove front bumper bar assembly (refer page 14-1).
3. Remove shroud trim inner panel (refer page 3-1).
4. From inside body, remove bolts securing rear end of fender to cowl upper panel, front body pillar and rocker panel (see View A, Fig. 11-1).
5. Remove bolts securing front end of fender to radiator support and front end panels (see View D, Fig. 11-1).
6. When removing RH front fender, remove windshield washer reservoir and disconnect washer hoses and hood lock release cable attached to inside of fender.

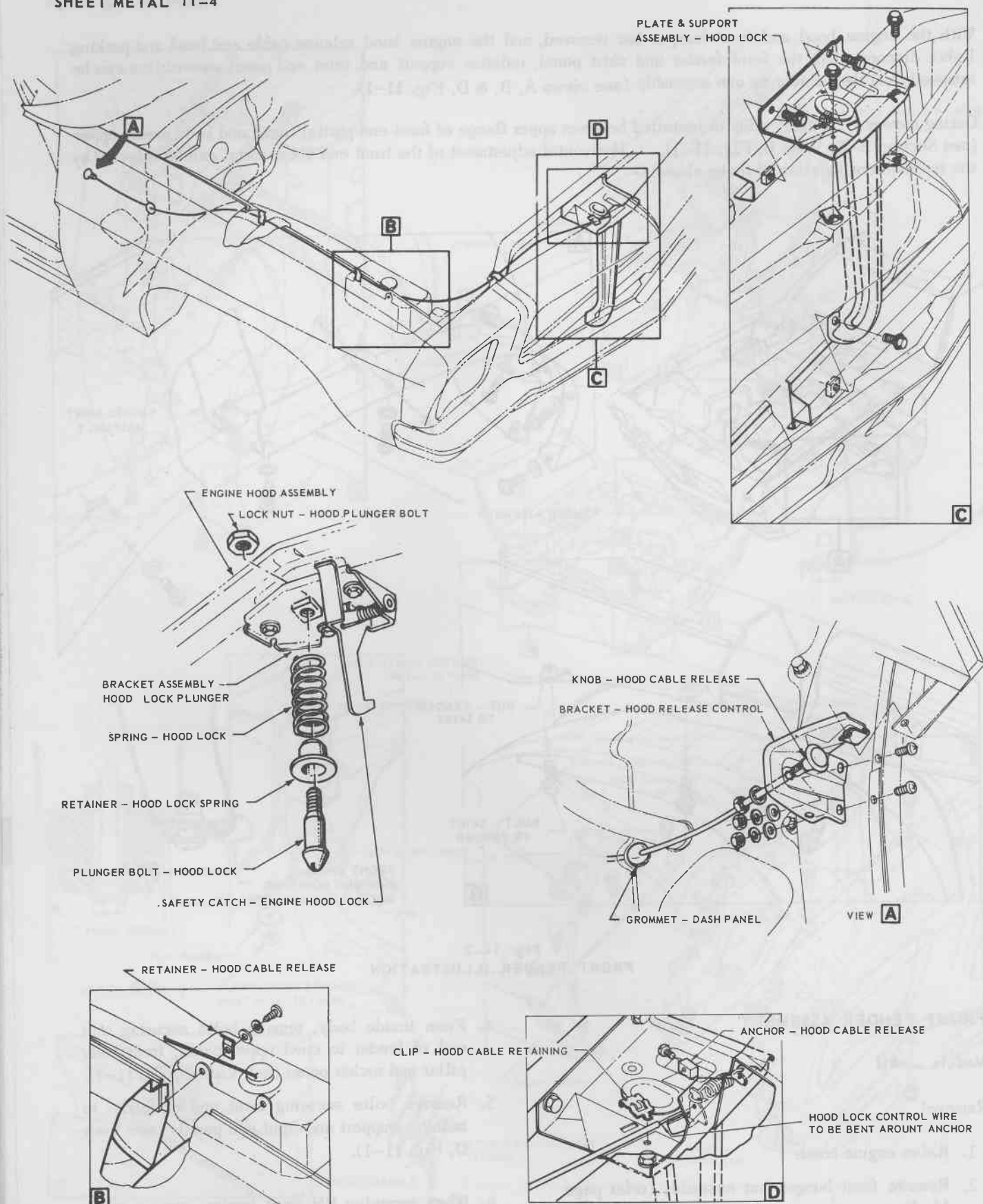


Fig. 11-3
HOOD LOCK INSTALLATION

7. From inside front wheelhouse, remove bolts securing fender to fender skirt (see View A, Fig. 11-2) and remove fender.

Installation

Reverse removal operations, ensuring that the front fender seal attached to the cowl upper flange seals effectively (see Section D-D, View E, Fig. 11-1).

FRONT END PANEL ASSEMBLY

Models - All

Removal

1. Raise engine hood.
2. Disconnect front parking lights.
3. Remove front bumper bar assembly (refer page 14-1).
4. Remove bolts securing front of hood lock support assembly to front end panel (see View C, Fig. 11-3).
5. Remove bolts securing front end panel assembly to front fender and radiator support panel and remove assembly (see View D, Fig. 11-1).

Installation

Reverse removal operations.

ENGINE HOOD

Models - All

Removal

1. Raise engine hood and place protective covers over front fenders and upper cowl panel.
2. Pencil scribe location of hinge brackets on hood inner panel to facilitate installation.
3. With an assistant supporting engine hood, remove bolts attaching hood to hinge assemblies and remove hood.

Installation

Reverse removal operations.

Adjustment - Engine Hood

When adjusting engine hood, it is important that uniform spacing and alignment between hood and related parts be maintained.

Slots in engine hood hinge brackets to hood inner panel and fender assemblies provide vertical and horizontal adjustment for rear end of engine hood. (see View C, Fig. 11-1).

Vertical adjustment to front end of engine hood is provided by adjustable engine hood bumpers attached to both sides of radiator support panel and to an adjustable hood lock bolt (see View D, Fig. 11-1 and Fig. 11-3).

CAUTION: Following any adjustment to engine hood, it is essential that lock operation be checked for alignment and effectiveness (refer engine hood lock and plate adjustment on this page).

LOCK PLATE and SUPPORT ASSEMBLY - ENGINE HOOD

Models - All

Removal

1. Raise engine hood.
2. Disconnect hood cable release anchor and retaining clip (see View D, Fig. 11-3).
3. Remove screws securing lock plate and support assembly to radiator support and front end panel. (see View C, Fig. 11-3) and remove assembly.

Adjustment - Engine Hood Lock

1. With engine hood raised, loosen lock plate and support assembly to radiator support and front end panel attaching screws (see View C, Fig. 11-3).
2. Carefully lower engine hood sufficient to permit tapered end of lock plunger bolt to enter and position lock plate in its correct location - Do not completely close engine hood.
3. Raise engine hood without disturbing lock plate, then tighten lock plate and support assembly attaching screws.
4. Lower engine hood to check engagement tension of lock plunger bolt in relation to lock plate.

5. To achieve correct engagement between lock plunger bolt and lock plate, position an open ended spanner between hood lock plunger bracket assembly and engine hood (see Fig. 11-3), loosen lock nut and using a screwdriver, turn plunger bolt clockwise to increase tension and anti-clockwise to achieve opposite effect.
6. When correct adjustment is achieved, tighten plunger lock nut.

BRACKET ASSEMBLY — Hood Lock Plunger

Models — All

Removal

1. Raise engine hood.
2. Remove screw attached hood lock bracket from engine hood assembly (see Fig. 11-3).

Installation

Reverse removal operations, observing cautionary paragraph following "Engine Hood Adjustment" on page 11-5.

CABLE — ENGINE HOOD RELEASE

Models — All

Removal

1. Raise engine hood.
2. Disconnect front end of engine hood release cable from cable anchor and retaining clips securing cable to lock plate, radiator support panel and front fender (see Views B, C, and D, Fig. 11-3).

3. From within vehicle, to right of steering column and from below instrument panel, withdraw control knob and cable assembly (see View A, Fig. 11-3).
4. Remove nut securing cable casing to hood release control bracket and withdraw casing.

Installation

Reverse removal operations.

HINGE ASSEMBLY — ENGINE HOOD

Models — All

Removal

1. Raise engine hood and place protective cover over fender on side from which hinge assembly is to be removed.
2. Pencil scribe location of hinge brackets on hood inner panel and fender assembly to facilitate installation.
3. With an assistant supporting engine hood, remove bolts securing hinge assembly to hood inner panel and front fender and remove assembly (see View C, Fig. 11-1).

Installation

Reverse removal operations.

NOTES

SECTION 12

EXTERIOR ORNAMENTATION

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Windshield Upper Reveal Moulding	12-8	End Gate Glass Opening Moulding	12-12
Windshield Side Reveal Moulding	12-8	End Gate Outer & Centre Belt Moulding	12-12
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EXTERIOR ORNAMENTATION

Description

Exterior nameplates, emblems and mouldings are secured to the body and sheet metal with various plastic and spring steel retaining clips, anchor plates, screws, sealing nuts and tubular lock type clips.

NOTE: During removal and installation of exterior mouldings retained by plastic clips, the retaining edges of the clips can become damaged. Such damage necessitates replacement of clips.

Figs. 12 - 1 through to and including 12 - 6, illustrate these methods of attachment through sections of the mouldings. Figs. 12 - 3 to and including 12 - 6, also identify the various mouldings.

Exterior ornamentation is generally applied over paint finish surfaces, therefore, it is important that it be protected against damage by the use of masking tape applied adjacent to the part to be removed. Where screws or tubular lock type clips are used to secure nameplates or moulding retainers to panels, it is essential that a sealing compound be applied around nameplate or moulding holes prior to installation of screws or clips to effect a watertight seal.

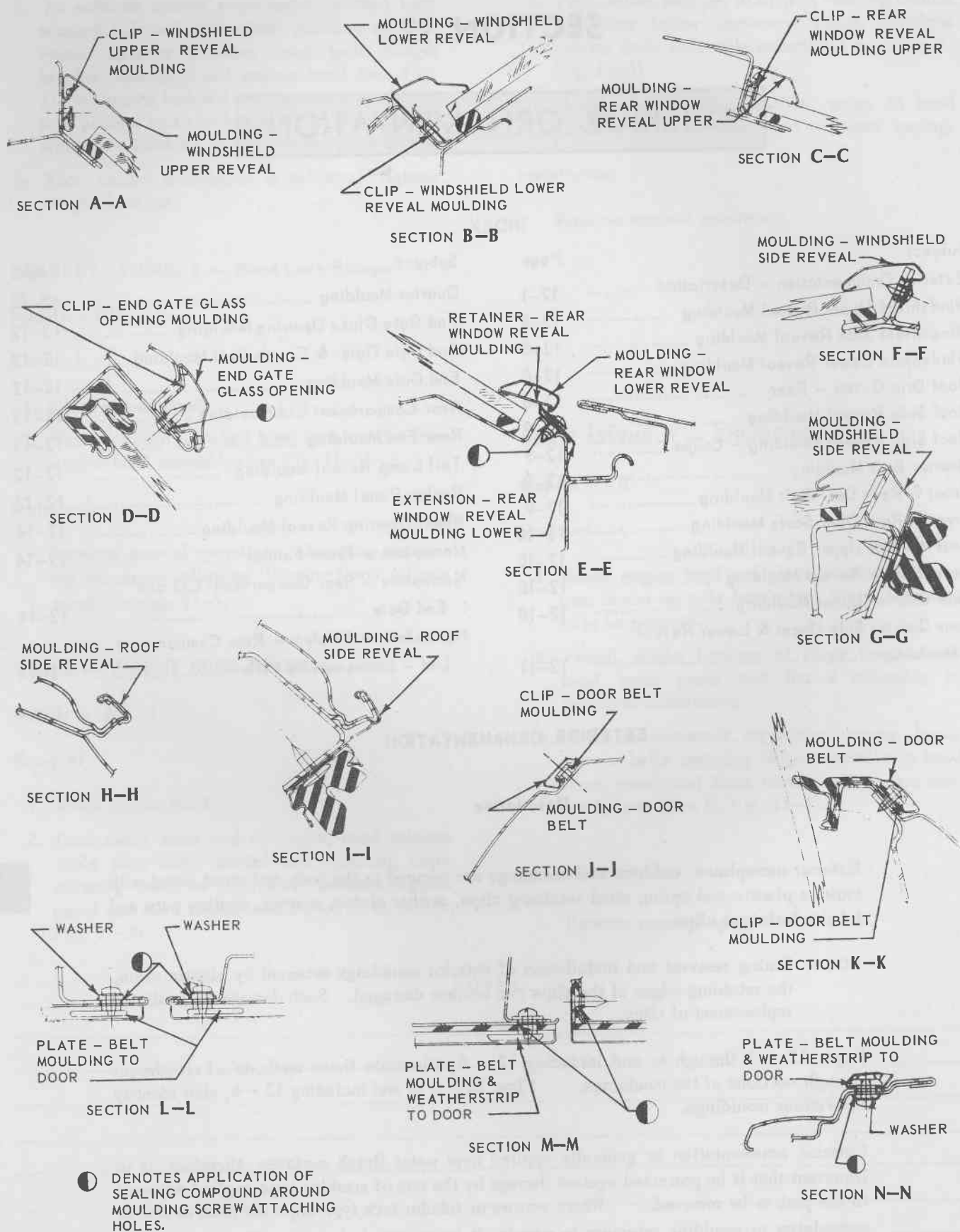


FIG. 12 - 1
BODY EXTERIOR MOULDING INSTALLATION

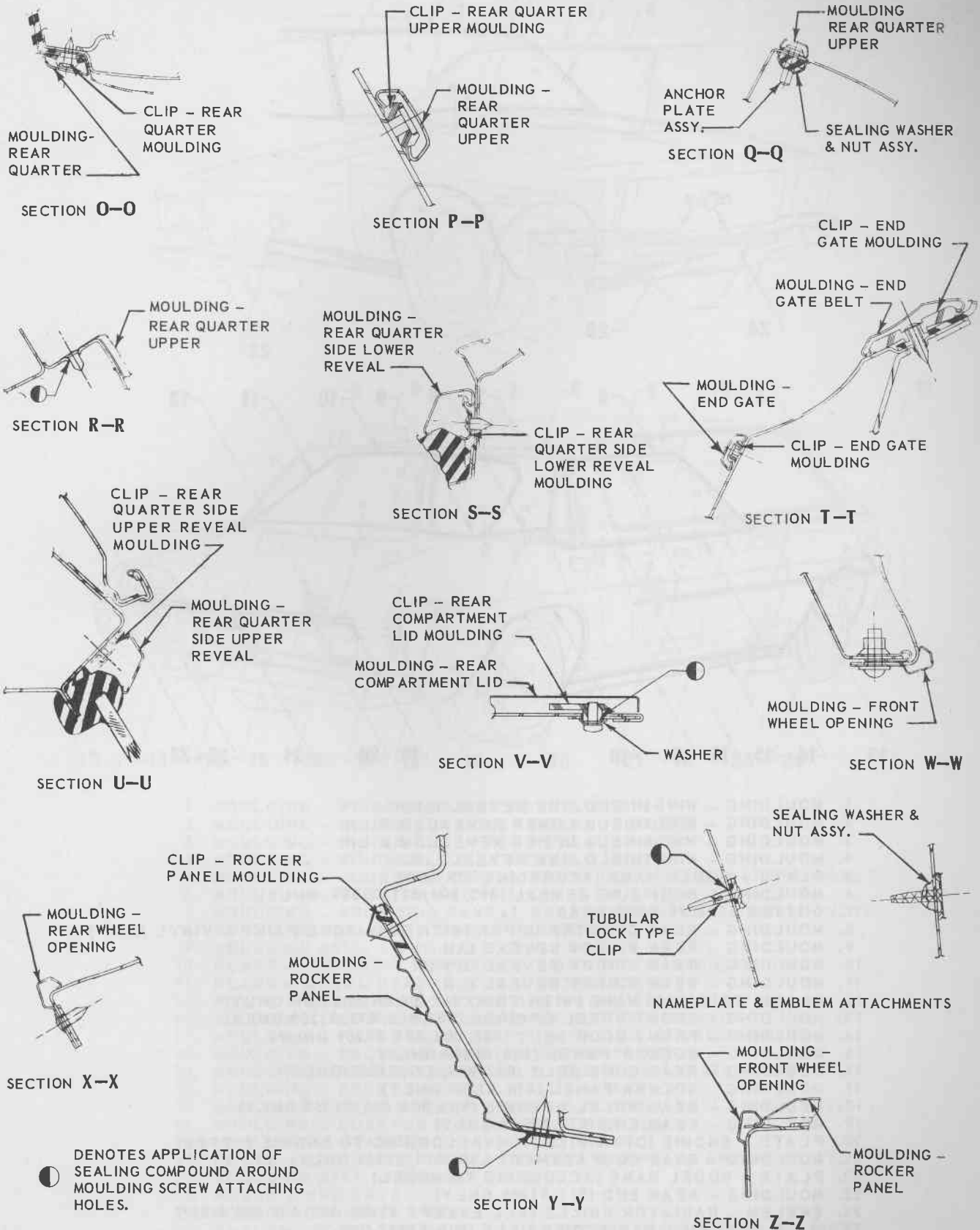
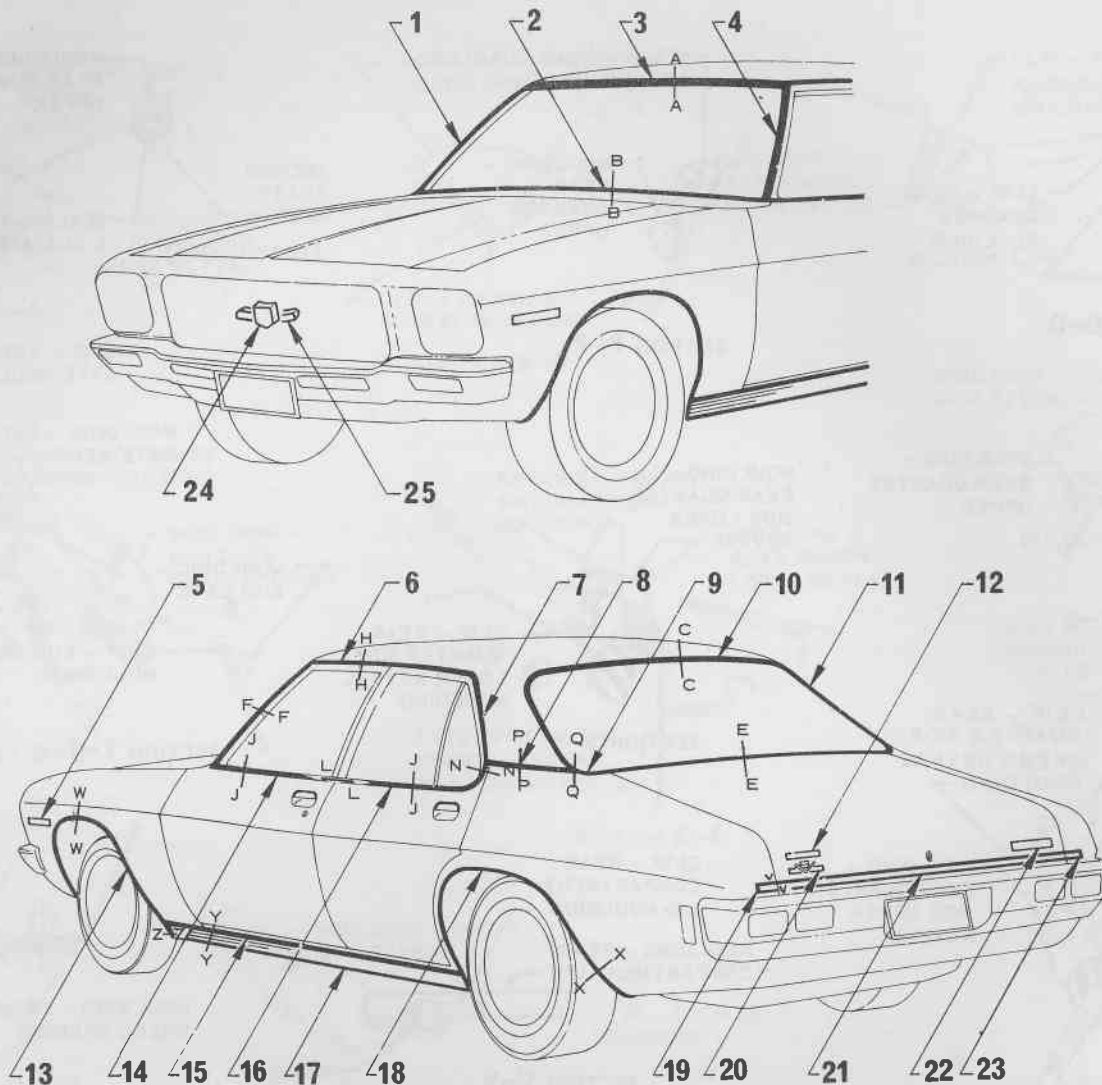
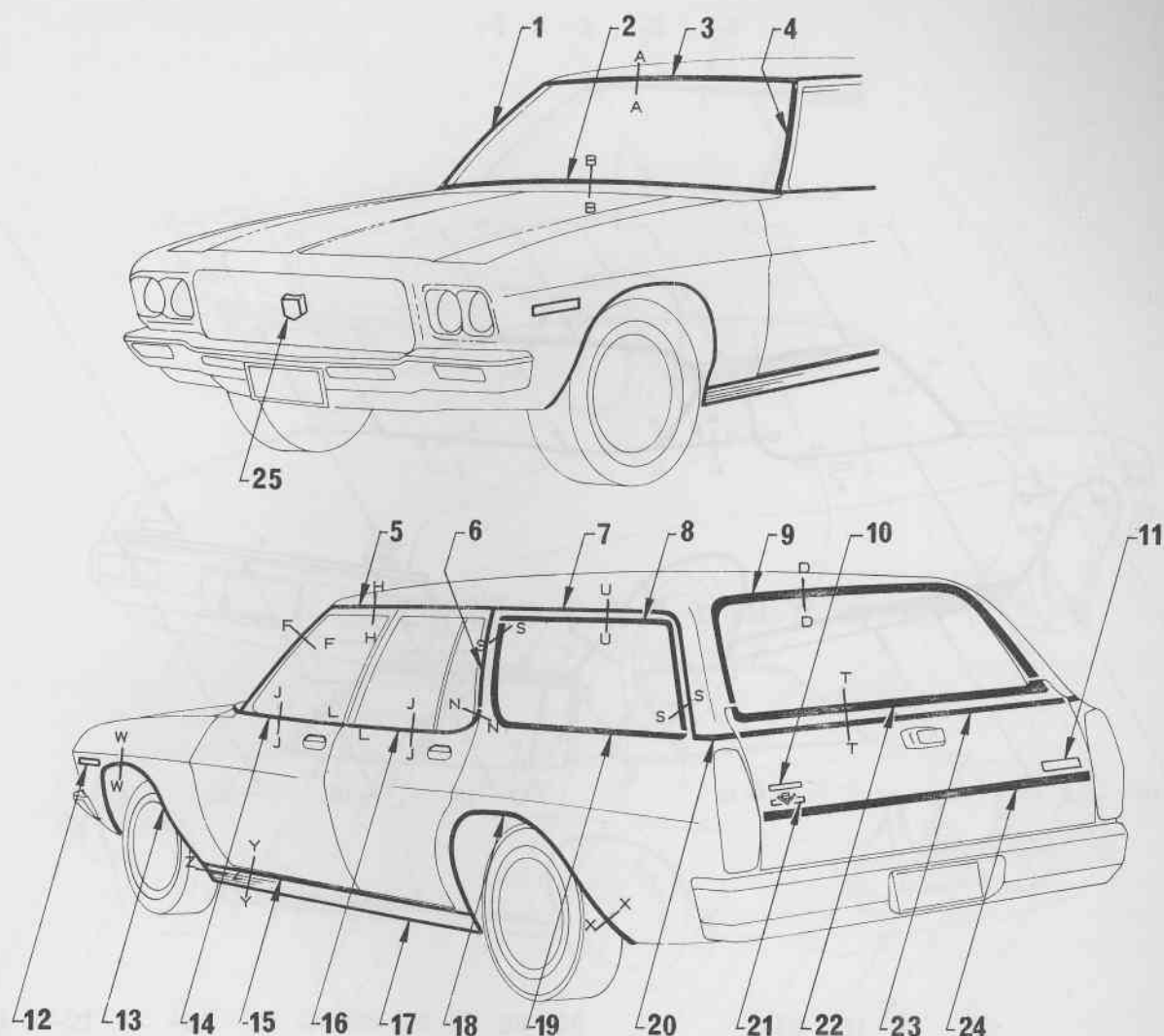


FIG. 12 - 2
BODY EXTERIOR MOULDING INSTALLATION



1. MOULDING - WINDSHIELD SIDE REVEAL R.H.
2. MOULDING - WINDSHIELD LOWER REVEAL. R & L.H.
3. MOULDING - WINDSHIELD UPPER REVEAL. R & L.H.
4. MOULDING - WINDSHIELD SIDE REVEAL L.H.
5. PLATE - MODEL NAME (ACCORDING TO MODEL)
6. MOULDING - ROOF SIDE REVEAL (803, 804, 811, 81269 ONLY)
7. GUTTER - ROOF DRIP REAR
8. MOULDING - REAR QUARTER UPPER (WITH TWO-TONE PAINT & VINYL ROOF)
9. MOULDING - REAR WINDOW REVEAL L.H.
10. MOULDING - REAR WINDOW REVEAL UPPER
11. MOULDING - REAR WINDOW REVEAL R.H.
12. PLATE 'TRIMATIC' NAME (WITH TRIMATIC TRANSMISSION ONLY)
13. MOULDING - FRONT WHEEL OPENING (803, 804, 811, 81269 ONLY)
14. MOULDING - FRONT DOOR BELT (803, 804, 811, 81269 ONLY)
15. MOULDING - ROCKER PANEL (803, 80469 ONLY)
16. MOULDING - REAR DOOR BELT (803, 804, 811, 81269 ONLY)
17. MOULDING - ROCKER PANEL (811, 81269 ONLY)
18. MOULDING - REAR WHEEL OPENING (803, 804, 811, 81269 ONLY)
19. MOULDING - REAR END (811, 81269 ONLY)
20. PLATE - ENGINE IDENTIFICATION (ACCORDING TO ENGINE FITTED)
21. MOULDING - REAR COMPARTMENT LID (811, 81269 ONLY)
22. PLATE - MODEL NAME (ACCORDING TO MODEL)
23. MOULDING - REAR END (811, 81269 ONLY)
24. EMBLEM - RADIATOR GRILLE (ALL EXCEPT 81400, 500, 600, 808, 81837)
25. G.T.S. EMBLEM - RADIATOR GRILLE (808, 81837 ONLY)

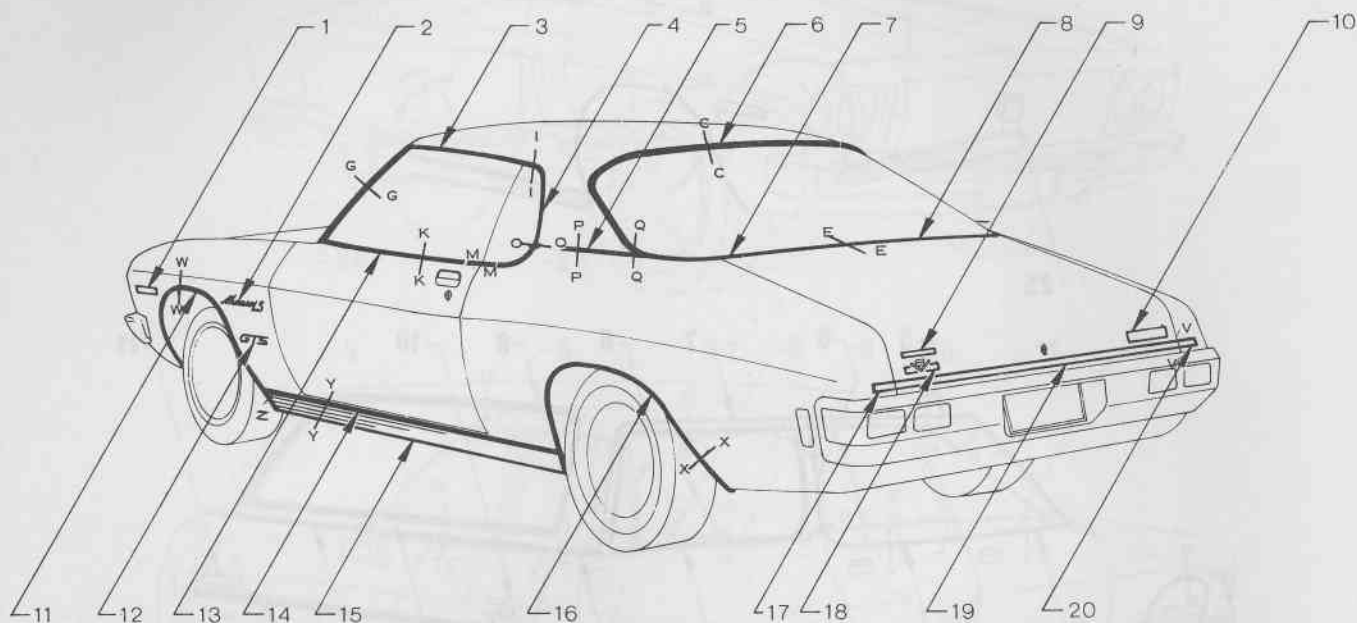
FIG. 12 - 3
BODY EXTERIOR ORNAMENTATION IDENTIFICATION
MODELS - SEDAN EXCEPT STATESMAN



1. MOULDING - WINDSHIELD SIDE REVEAL R.H.
2. MOULDING - WINDSHIELD LOWER REVEAL. R & L.H.
3. MOULDING - WINDSHIELD UPPER REVEAL. R & L.H.
4. MOULDING - WINDSHIELD SIDE REVEAL L.H.
5. MOULDING - ROOF SIDE REVEAL FRONT L.H. (803, 804, 811, 81235 ONLY)
6. MOULDING - QUARTER FRONT L.H. (803, 804, 811, 81235 ONLY)
7. MOULDING - ROOF SIDE REVEAL REAR L.H. (803, 804, 811, 81235 ONLY)
8. MOULDING - QUARTER SIDE UPPER REVEAL L.H.
9. MOULDING ASSY. - END GATE GLASS OPEN
10. PLATE - 'TRIMATIC' NAME (WITH TRIMATIC TRANSMISSION ONLY)
11. PLATE - MODEL NAME (ACCORDING TO MODEL)
12. PLATE - MODEL NAME (ACCORDING TO MODEL)
13. MOULDING - FRONT WHEEL OPENING L.H. (803, 804, 811, 81235 ONLY)
14. MOULDING - FRONT DOOR BELT L.H. (803, 804, 811, 81235 ONLY)
15. MOULDING - ROCKER PANEL L.H. (803, 80435 ONLY)
16. MOULDING - REAR DOOR BELT L.H. (803, 804, 811, 81235 ONLY)
17. MOULDING - ROCKER PANEL L.H. (811, 81235 ONLY)
18. MOULDING - REAR WHEEL OPENING L.H. (803, 804, 811, 81235 ONLY)
19. MOULDING - QUARTER SIDE LOWER REVEAL L.H.
20. MOULDING - QUARTER L.H. (WITH D99 ONLY)
21. PLATE - ENGINE IDENTIFICATION (ACCORDING TO ENGINE FITTED)
22. MOULDING ASSY. - END GATE BELT
23. MOULD - END GATE
24. MOULD - END GATE LOWER
25. EMBLEM - RADIATOR GRILLE (ALL EXCEPT 81400, 500, 600, 808, 81837)

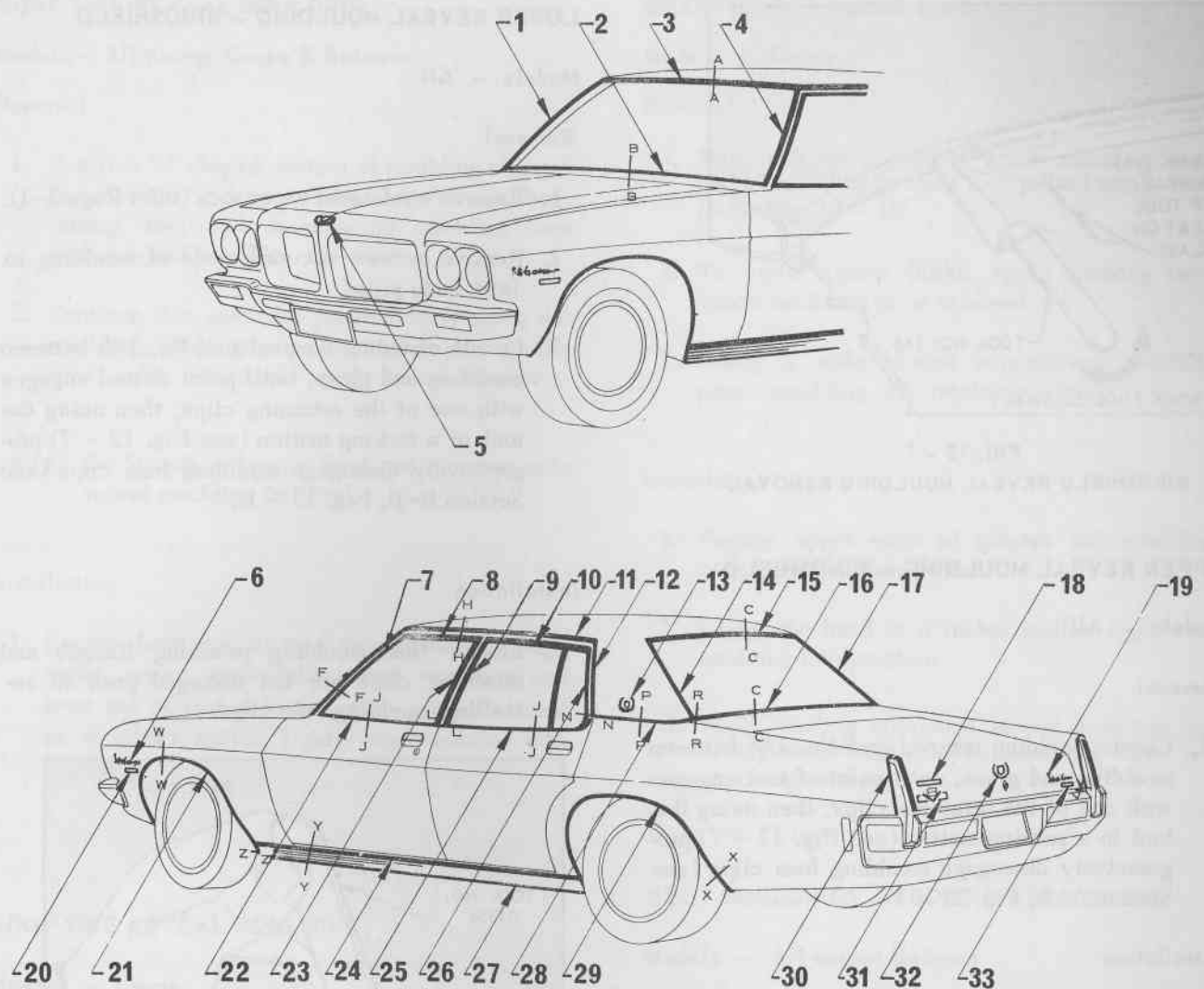
FIG. 12 - 4

BODY EXTERIOR ORNAMENTATION IDENTIFICATION
MODELS - STATION SEDAN



1. NAMEPLATE - 'MONARO' (803, 80437 ONLY)
2. NAMEPLATE - 'MONARO LS' (811, 81237 ONLY)
3. MOULDING - ROOF SIDE REVEAL
4. MOULDING - QUARTER BELT
5. MOULDING - REAR QUARTER UPPER (811, 81237, 803, 80437 WITH C27, C08 & CB1 ONLY)
6. MOULDING - REAR WINDOW REVEAL UPPER
7. MOULDING - REAR WINDOW REVEAL L.H.
8. MOULDING - REAR WINDOW REVEAL R.H.
9. NAMEPLATE - 'TRIMATIC' (WITH M40 ONLY)
10. NAMEPLATE - (ACCORDING TO MODEL)
11. MOULDING - FRONT WHEEL OPENING
12. GTS EMBLEM - RADIATOR GRILLE (808, 81837 ONLY)
13. MOULDING - DOOR BELT
14. MOULDING - ROCKER PANEL (803, 80437 ONLY)
15. MOULDING - ROCKER PANEL (811, 81237 ONLY)
16. MOULDING - REAR WHEEL OPENING
17. MOULDING - REAR END (811, 81237 ONLY)
18. PLATE - ENGINE IDENTIFICATION
19. MOULDING - REAR COMPARTMENT LID (811, 81237 ONLY)
20. MOULDING - REAR END (811, 81237 ONLY)

FIG. 12 - 5
BODY EXTERIOR ORNAMENTATION IDENTIFICATION
MODELS - COUPE



- | | |
|--|--|
| 1. MOULDING - WINDSHIELD SIDE REVEAL R.H. | 18. NAMEPLATE - 'TRIMATIC' (815,600 WITH M40 ONLY) |
| 2. MOULDING - WINDSHIELD LOWER REVEAL. R & LH | 19. NAMEPLATE - 'STATESMAN' |
| 3. MOULDING - WINDSHIELD UPPER REVEAL. R & LH | 20. NAMEPLATE - 'DEVILLE' (81400 ONLY) |
| 4. MOULDING - WINDSHIELD SIDE REVEAL L.H. | 21. MOULDING - FRONT WHEEL OPENING |
| 5. EMBLEM - (81400 ONLY) | 22. MOULDING - FRONT DOOR BELT |
| 6. NAMEPLATE - 'STATESMAN' | 23. MOULDING - FRONT DOOR SCALP REAR L.H. (81400 ONLY) |
| 7. MOULDING - FRONT DOOR SCALP FRONT L.H. (81400 ONLY) | 24. MOULDING - ROCKER PANEL (815,600 ONLY) |
| 8. MOULDING - FRONT DOOR SCALP UPPER L.H. (81400 ONLY) | 25. MOULDING - REAR DOOR BELT |
| 9. MOULDING - REAR DOOR SCALP FRONT L.H. (81400 ONLY) | 26. MOULDING - REAR DOOR SCALP REAR (81400 ONLY) |
| 10. MOULDING - REAR DOOR SCALP UPPER L.H. (81400 ONLY) | 27. MOULDING - ROCKER PANEL (81400 ONLY) |
| 11. MOULDING - ROOF SIDE REVEAL | 28. MOULDING - REAR QUARTER UPPER (81400, 815, 600 WITH C27, CO8 & CB1 ONLY) |
| 12. GUTTER - ROOF DRIP REAR | 29. MOULDING - REAR WHEEL OPENING |
| 13. EMBLEM - (81400 ONLY) | 30. MOULDING - TAIL LAMP REVEAL |
| 14. MOULDING - REAR WINDOW REVEAL L.H. | 31. PLATE - ENGINE IDENTIFICATION |
| 15. MOULDING - REAR WINDOW REVEAL UPPER | 32. EMBLEM - (81400 ONLY) |
| 16. MOULDING - REAR WINDOW REVEAL LOWER | 33. NAMEPLATE - 'DEVILLE' (81400 ONLY) |
| 17. MOULDING - REAR WINDOW REVEAL R.H. | |

FIG. 12 - 6

BODY EXTERIOR ORNAMENTATION IDENTIFICATION
MODELS - STATESMAN

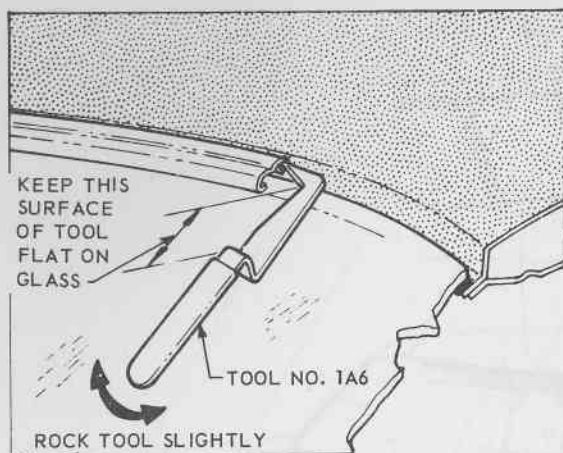


FIG. 12 - 7
WINDSHIELD REVEAL MOULDING REMOVAL

LOWER REVEAL MOULDING - WINDSHIELD

Models - All

Removal

1. Remove windshield wiper rods (refer Page 3-1).
2. Remove screws securing ends of moulding to front body pillar.
3. Locate moulding removal tool No. 1A6 between moulding and glass, until point of tool engages with one of the retaining clips, then using the tool in a rocking motion (see Fig. 12 - 7) progressively disengage moulding from clips (see Section B-B, Fig. 12 - 1).

Installation

1. Ensure that moulding retaining flanges and retaining clips are not damaged prior to installing moulding onto clips.

UPPER REVEAL MOULDING - WINDSHIELD

Models - All

Removal

1. Locate moulding removal tool No. 1A6 between moulding and glass, until point of tool engages with one of the retaining clips, then using the tool in a rocking motion (see Fig. 12 - 7) progressively disengage moulding from clips (see Section A-A, Fig. 12 - 1).

Installation

Ensure that moulding retaining flanges and attaching clips are not damaged prior to installing moulding onto clips.

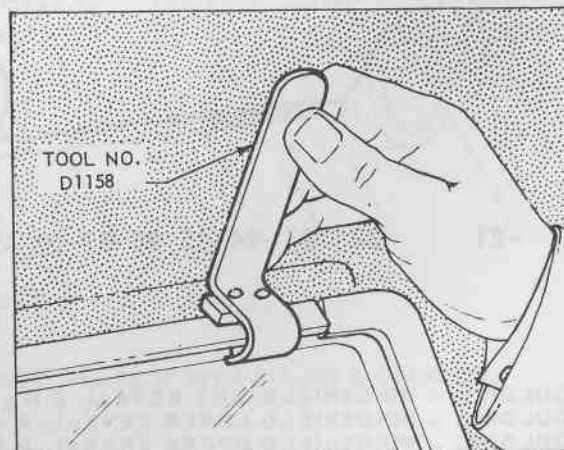


FIG. 12 - 8
ROOF SIDE REVEAL MOULDING REMOVAL

SIDE REVEAL MOULDINGS - WINDSHIELD

Models - All

Removal

1. With door open, remove screws securing side reveal mouldings to front body pillar (see Section F-F, Fig. 12 - 1). On coupes, it is necessary to remove the upper weatherstrip and retainer (see Section G-G, Fig. 12 - 1).
2. Lift off moulding.

Installation

Reverse removal operations.

ROOF DRIP GUTTER - REAR

Models - Sedans & Station Sedans
except Belmont

Removal

1. With rear door open, remove screws securing drip gutter to quarter panel, then remove gutter.

Installation

Reverse removal operations.

ROOF SIDE REVEAL MOULDING**Models - All except Coupe & Belmont****Removal**

1. Position 'U' shaped section of moulding removal tool No. 1A7 under rear lower edge of moulding, raising tool and disengaging moulding from roof side rail (see Fig. 12 - 8).
2. Continue this operation progressively along the moulding, disengaging front end of moulding from under windshield upper reveal moulding.

NOTE: On Station Sedans, a front and rear roof side reveal moulding is fitted.

Installation

1. Locate front end of roof side reveal moulding under upper windshield reveal moulding and over top of roof side rail, then using the hand or a rubber mallet, lightly tap moulding into position.

ROOF SIDE REVEAL MOULDING**Models - Coupe****Removal**

1. Open door and lower quarter windows on side from which moulding is to be removed.
2. Remove rear roof drip gutter (refer Page 12 - 8).
3. Ease out upper weatherstrip adjacent to moulding from retainer.
4. Loosen screws securing weatherstrip retainer to roof side rail, then slide moulding out from between roof side rail and weatherstrip retainer (see Section I-I, Fig. 12 - 1).

Installation

Apply sealing compound between roof side rail and weatherstrip retainer prior to reversing removal operations.

QUARTER BELT MOULDING**Models - Coupe****Removal**

1. With door open, remove screw securing lower end of moulding to body lock pillar (see Section M-M, Fig. 12 - 1).
2. To protect paint finish, apply masking tape below moulding to be removed.
3. Using a wide bladed screwdriver, carefully prise moulding off retaining clips.

Installation

1. Engage upper edge of quarter belt moulding over top of retaining clips.
2. Using the hand or a rubber mallet, lightly tap moulding into position.
3. Apply sealing compound around moulding attaching screw hole prior to installing screw and removing masking tape.

BELT MOULDINGS - FRONT & REAR DOORS**Models - All except Belmont****Removal**

1. To protect paint finish, apply masking tape below moulding to be removed.
2. With door open, remove screws securing rear end of front door belt moulding to door (see Section L-L or M-M, Fig. 12 - 1).
3. On rear door, remove screws securing front and rear ends of belt moulding to door (see Sections L-L and N-N, Fig. 12 - 1).
4. Using a wide bladed screwdriver, carefully prise moulding off retaining clips. (See Section J-J or K-K, Fig. 12 - 1).

Installation

1. Locate upper edge of moulding over top of retaining clips, then using the hand or a rubber mallet, lightly tap moulding into position.

2. Apply sealing compound around moulding attaching screw holes prior to installing screw(s) and removing masking tape.

SCALP MOULDINGS - FRONT & REAR DOOR

Models - Statesman De Ville

Removal

1. Remove door belt moulding (refer preceding instructions).
2. Unclinch retaining tabs at inside ends of upper scalp moulding.
3. With window lowered, partly remove upper glass run channel.
4. Position a wide bladed screwdriver against end of lower edge of upper scalp moulding and using inner wall of door upper frame as a fulcrum, carefully prise scalp moulding from door upper frame.
5. Using the same procedure, remove the front and rear scalp moulding from the door upper frame.

Installation

Ensure that flanges of scalp mouldings are not damaged prior to reversing removal operations.

UPPER REVEAL MOULDING - REAR WINDOW

Models - Sedan & Coupe

Removal

1. Locate moulding removal tool No. 1A6 between moulding and glass, until point of tool engages with one of the retaining clips, then using the tool in a rocking motion (see Fig. 12 - 7) progressively disengage moulding from clips (see Section C-C, Fig. 12 - 1).

Installation

Ensure that moulding retaining flanges and attaching clips are not damaged prior to installing moulding onto clips.

REVEAL MOULDINGS - REAR WINDOW

Models - Coupe & Sedan except Statesman

Removal

1. Raise rear compartment lid, then remove screws securing rear window reveal moulding extension to rear compartment upper panel (see Section E-E, Fig. 12 - 1).
2. Locate moulding removal tool No. 1A6 between moulding and glass, until point of tool engages with one of the retaining clips, then using the tool in a rocking motion (see Fig. 12 - 7) progressively disengage moulding from clips (see Section C-C, Fig. 12 - 1).
3. Disengage reveal mouldings from upper reveal moulding.

Installation

1. Locate top end of reveal moulding into lower end of upper reveal moulding, then install moulding onto retaining clips.
2. Apply sealing compound around moulding extension attaching screw holes prior to installing extension onto back panel upper.

NOTE: On Statesman models, the method of retaining the rear window reveal mouldings are similar, however, no moulding extension covering the lower reveal moulding attaching clips are used and the sequence of installation is lower, sides then upper rear window reveal mouldings.

REAR QUARTER UPPER MOULDING

Models - Statesman De Ville, LS Monaro & Optional on All Sedans & Coupes

Removal

1. On Statesman models, remove lower reveal moulding (refer preceding instructions).
2. On Statesman models, remove screw securing rear end of moulding to rear quarter panel (see Section R-R, Fig. 12 - 2).

3. On coupes and sedans other than Statesman, open rear compartment lid and from within compartment, remove sealing nut securing rear end of moulding to rear quarter panel (see Section Q-Q, Fig. 12 - 2).
4. To protect paint finish, apply masking tape below moulding.
5. Using a wide bladed screwdriver located between moulding and panel, carefully prise moulding off retaining clips (see Section P-P, Fig. 12 - 2).

Installation

1. Locate upper edge of moulding over top of retaining clips and using the hand or a rubber mallet, lightly tap moulding into position.
2. On Statesman models, apply caulking compound around screw attaching hole at rear end of moulding prior to installing screw and lower reveal moulding.

3. On other models and from inside rear compartment, install sealing nut securing rear end of moulding onto rear quarter panel.

REAR QUARTER SIDE UPPER & LOWER REVEAL MOULDINGS

Models - Station Sedan

Removal

1. Insert moulding removal tool No. 1A6, between moulding and rubber weatherstrip, until point of tool engages with one of the retaining clips, then using the tool in a rocking motion (see Fig. 12 - 9), progressively disengage moulding from clips (see Section U-U, Fig. 12 - 2).

Installation

1. Locate moulding over retaining clips and lightly tap moulding into position, using the hand or a rubber mallet.

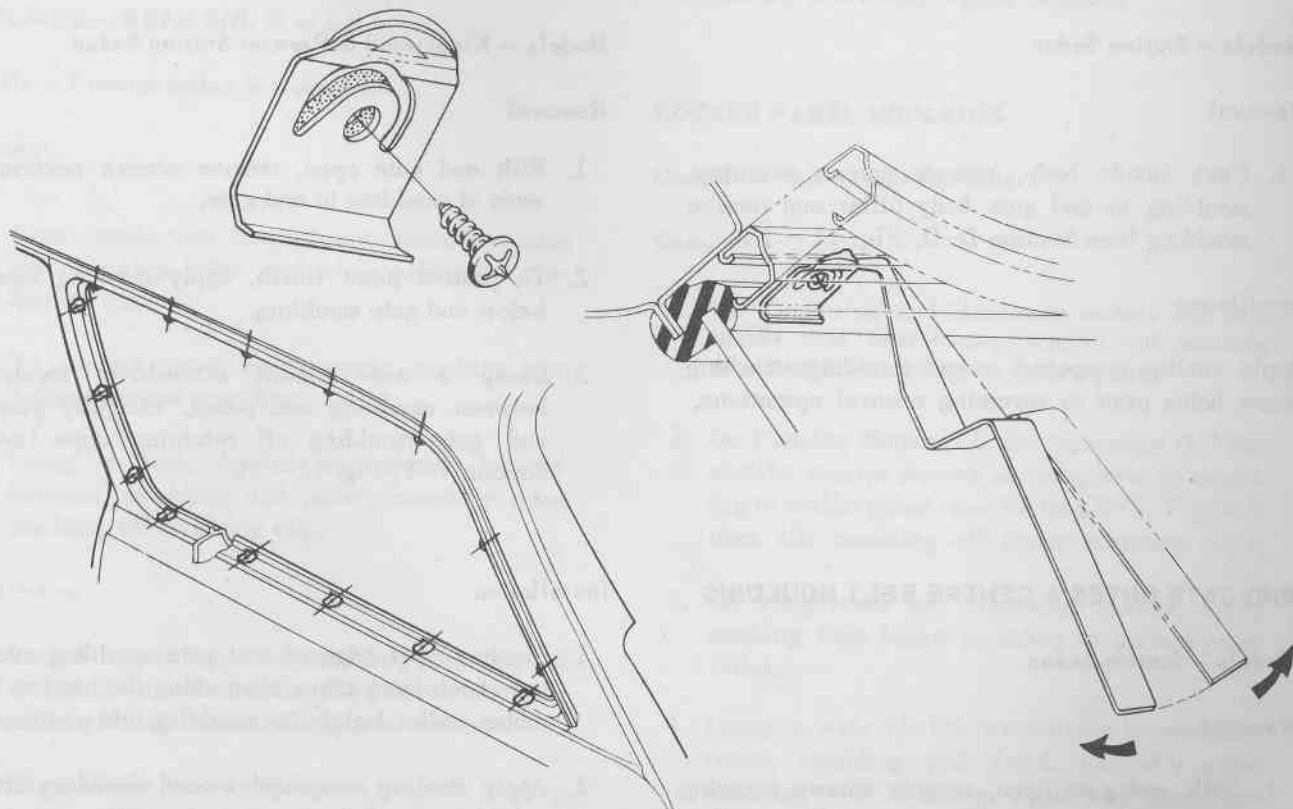


FIG. 12 - 9

REAR QUARTER SIDE REVEAL MOULDING REMOVAL

MOULDING - QUARTER

Models - Premier Station Sedan & Optional
on other Station Sedans

Removal

1. With end gate lowered, remove screw securing rear end of moulding to end gate body pillar.
2. To protect paint finish, apply masking tape below moulding to be removed.
3. Using a wide bladed screwdriver, carefully prise moulding off retaining clips.

Installation

1. Locate upper edge of moulding over top of retaining clips, then using the hand or a rubber mallet, lightly tap moulding into position.
2. Apply sealing compound around moulding attaching screw hole prior to installing screw and removing masking tape.

2. To protect paint finish, apply masking tape below centre moulding.
3. Using a wide bladed screwdriver, carefully prise centre moulding off retaining clips (see Section T-T, Fig. 12 - 2).

Installation

1. Locate upper edge of centre moulding over top of retaining clips, then using the hand or a rubber mallet, lightly tap moulding into position.
2. Locate outer mouldings under ends of centre moulding.
3. Apply sealing compound around outer moulding attaching screw holes prior to installing screws and removing masking tape.

END GATE GLASS OPENING MOULDING

Models - Station Sedan

Removal

1. From inside body, remove screws securing moulding to end gate body pillar and remove moulding (see Section D-D, Fig. 12 - 1).

Installation

Apply sealing compound around moulding attaching screw holes prior to reversing removal operations.

MOULDING - END GATE

Models - Kingswood & Premier Station Sedan

Removal

1. With end gate open, remove screws securing ends of moulding to end gate.
2. To protect paint finish, apply masking tape below end gate moulding.
3. Using a wide bladed screwdriver located between moulding and panel, carefully prise end gate moulding off retaining clips (see Section T-T, Fig. 12 - 2).

Installation

1. Locate upper edge of end gate moulding over top of retaining clips, then using the hand or a rubber mallet, lightly tap moulding into position.
2. Apply sealing compound around moulding attaching screw holes prior to installing screws and removing masking tape.

END GATE OUTER & CENTRE BELT MOULDING

Models - Station Sedan

Removal

1. With end gate open, remove screws securing outer end gate mouldings to end gate, then remove outer mouldings.

REAR COMPARTMENT LID MOULDING**Models - Premier Sedan & Monaro LS****Removal**

1. With rear compartment lid open, remove screws securing ends of moulding to rear compartment lid (see Section V-V, Fig. 12 - 2).
2. To protect paint finish, apply masking tape below moulding to be removed.
3. Using a wide bladed screwdriver located between moulding and lid, carefully prise moulding off retaining clips.

Installation

1. Locate upper edge of moulding over top of retaining clips, then using the hand or a rubber mallet, lightly tap moulding into position.
2. Apply sealing compound around moulding attaching screw holes prior to installing screws and removing masking tape.

MOULDING - REAR END R or LH**Models - Premier Sedan & Monaro LS****Removal**

1. From inside rear compartment, remove sealing nut securing outer end of moulding to rear quarter panel.
2. To protect paint finish, apply masking tape below rear end moulding.
3. Using a wide bladed screwdriver located between moulding and panel, carefully prise moulding off retaining clip.

Installation

1. Locate upper edge of moulding over top of retaining clip, then using the hand or a rubber mallet, lightly tap moulding into position.
2. From inside rear compartment, install sealing nut securing outer edge of rear end moulding to rear quarter panel.

TAIL LAMP REVEAL MOULDING**Models - Statesman****Removal**

1. Remove rear lamp (refer Vol. 5, 'HQ' Electrical Instruments and Gauges).
2. Remove screw securing top of moulding to rear lamp recess.
3. To protect paint finish, apply masking tape adjacent to moulding.
4. Using a wide bladed screwdriver positioned between moulding and rear quarter panel, carefully prise moulding studs out of spring retainers.

Installation

1. Apply sealing compound around moulding screw and stud attaching holes in rear quarter panel.
2. Install moulding onto end of rear quarter panel, using new spring retainers.
3. Install screw into top of moulding.

ROCKER PANEL MOULDING**Models - All except Belmont****Removal**

1. On Kingswood and Statesman models and from inside rear wheelhouse, remove nut securing rear end of moulding to rocker panel.
2. On Premier, Monaro LS and Statesman DeVille models, remove screws securing base of moulding to rocker panel (see Section Y-Y, Fig. 2-2) then lift moulding off upper retaining clips.
3. On Kingswood and Statesman models, apply masking tape below moulding to protect paint finish.
4. Using a wide bladed screwdriver located between moulding and panel, carefully prise moulding off retaining clips and disengage front end of moulding from under front wheel opening moulding (see Section Z-Z, Fig. 12-2).

Installation

1. On Kingswood and Statesman models, locate front end of moulding under front wheel opening moulding (see Section Z-Z, Fig. 12-2), and the upper edge, over top of retaining clips.
2. Using the hand or a rubber mallet, lightly tap moulding into position.
3. From inside front of rear wheelhouse, install nut securing rear end of moulding to rocker panel, then remove masking tape.
4. On Premier, Monaro LS and Statesman De Ville models, locate upper edge of moulding over top of retaining clips and install screws along bottom of moulding (see Section Y-Y, Fig. 12-2).

WHEEL OPENING REVEAL MOULDING**Models - All except Belmont****Removal**

1. Remove screws securing moulding to front fender or rear quarter panel (see Sections W-W, X-X or Z-Z, Fig. 12-2) then remove moulding.

Installation

Reverse removal operations.

NAMEPLATE - FRONT FENDER**Models - All****Removal**

1. From within front end of engine compartment, remove sealing nuts securing nameplate to front fender outer panel (see Fig. 12 - 2)

Installation

Reverse removal operation.

NAMEPLATE - REAR COMPARTMENT LID AND END GATE**Models - All except Statesman De Ville****Removal**

1. To protect paint finish, apply masking tape below nameplate to be removed.
2. Using a wide bladed screwdriver located between nameplate and panel, carefully prise nameplate from tubular lock type clips (see Fig. 12 - 2).

Installation

1. Apply sealing compound around nameplate attaching studs prior to inserting studs into clips and lightly tapping nameplate into position, using the hand or a rubber mallet.
2. Remove masking tape.

NAMEPLATE AND/OR EMBLEM - REAR COMPARTMENT LID**Models - Statesman De Ville****Removal**

1. With rear compartment lid raised and from between inner and outer panels of lid, remove sealing nut securing one side of emblem or nameplate to lid (see Fig. 12 - 2).
2. To protect paint finish, apply masking tape adjacent to emblem or nameplate to be removed.
3. Using a wide bladed screwdriver located between emblem or nameplate and panel, carefully prise emblem or nameplate from tubular lock type clip (see Fig. 12 - 2).

Installation

1. Apply sealing compound around emblem or nameplate attaching stud prior to inserting stud into clip and lightly tapping emblem or nameplate into position, using the hand or a rubber mallet.
2. From between inner and outer panels of lid, install sealing nut, then remove masking tape.

SECTION 13

RADIATOR GRILLE

Description

The radiator grille on all models is of moulded plastic - two piece on Statesman and one piece on all other models, (see Fig. 13 - 1).

Special paint treatment employed on the radiator grille of GTS and GTS 350 models is distinct from that of other models.

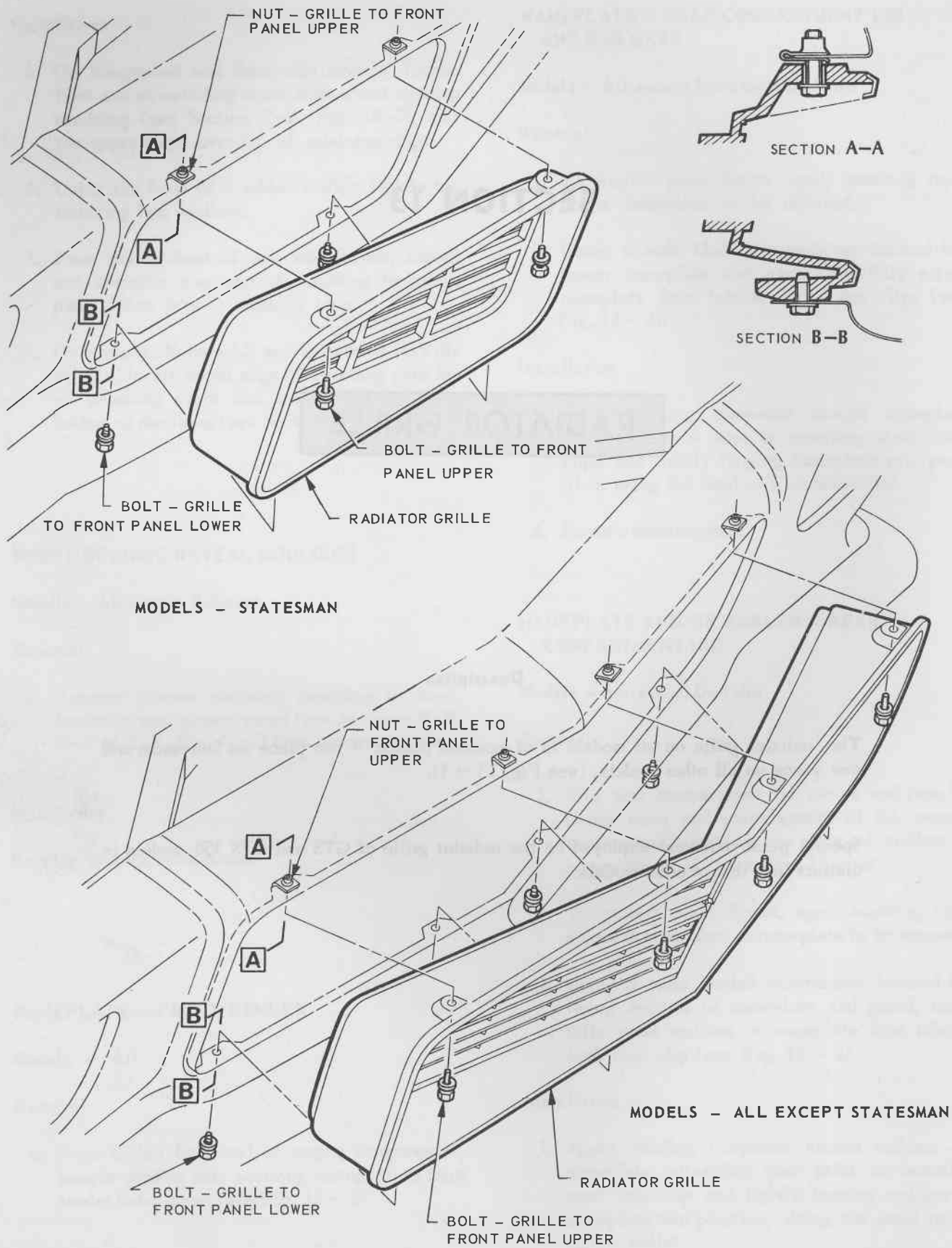


FIG. 13 - 1
RADIATOR GRILLE INSTALLATION

RADIATOR GRILLE

Models - All

Removal

1. Raise engine hood;
2. Remove bolts securing top and bottom of radiator grille to front end panel (see Sections A-A and B-B, Fig. 13 - 1).

Installation

Reverse removal operations.

EMBLEM OR NAMEPLATE - RADIATOR GRILLE

Models - All

Removal

1. Raise engine hood.
2. From between radiator and grille, remove nut securing emblem or nameplate to rear of grille (see Fig. 13 - 2).
3. Remove emblem or nameplate.

Installation

Reverse removal operations.

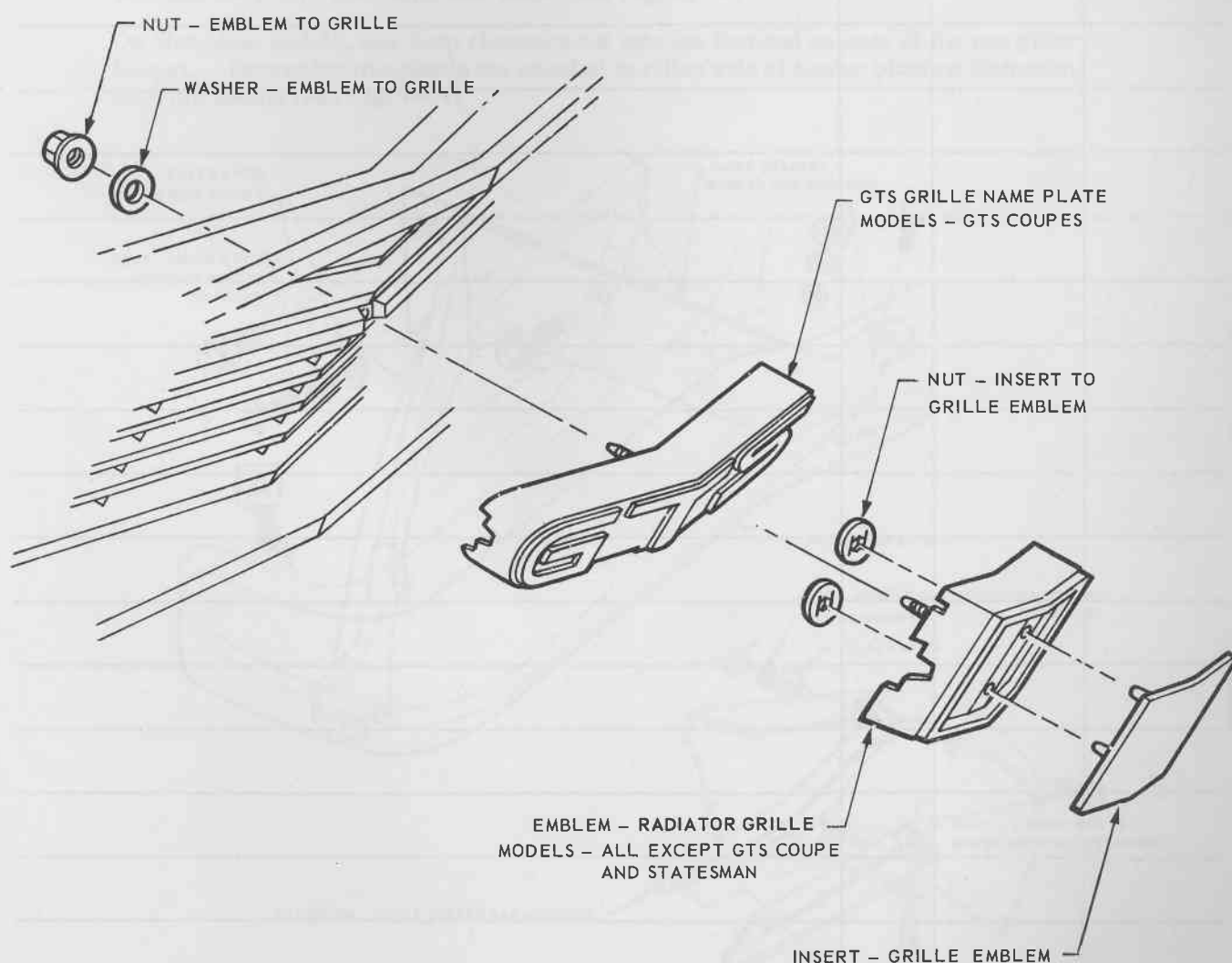


FIG. 13 - 2

NAME PLATE AND EMBLEM INSTALLATION - RADIATOR GRILLE

SECTION 14

BUMPER BARS

Description

The one piece front bumper bar fitted to HQ models is mounted to front of partial perimeter front end frame (see Fig. 14-1). It features horizontal tum signal and park lamp apertures located around bottom outer ledge of bumper.

The one piece rear bumper bar fitted to Station Sedans is mounted to body below rear lamps (see Fig. 14-2).

On all other body styles except Statesman, apertures in the one piece rear bumper surround horizontal motif style rear lamps (see Fig. 14-3).

On Statesman models, rear lamp clearance cut outs are featured on ends of the one piece bumper. Decorative trim panels are attached to either side of number plate on Statesman De Ville models (see Fig. 14-4)

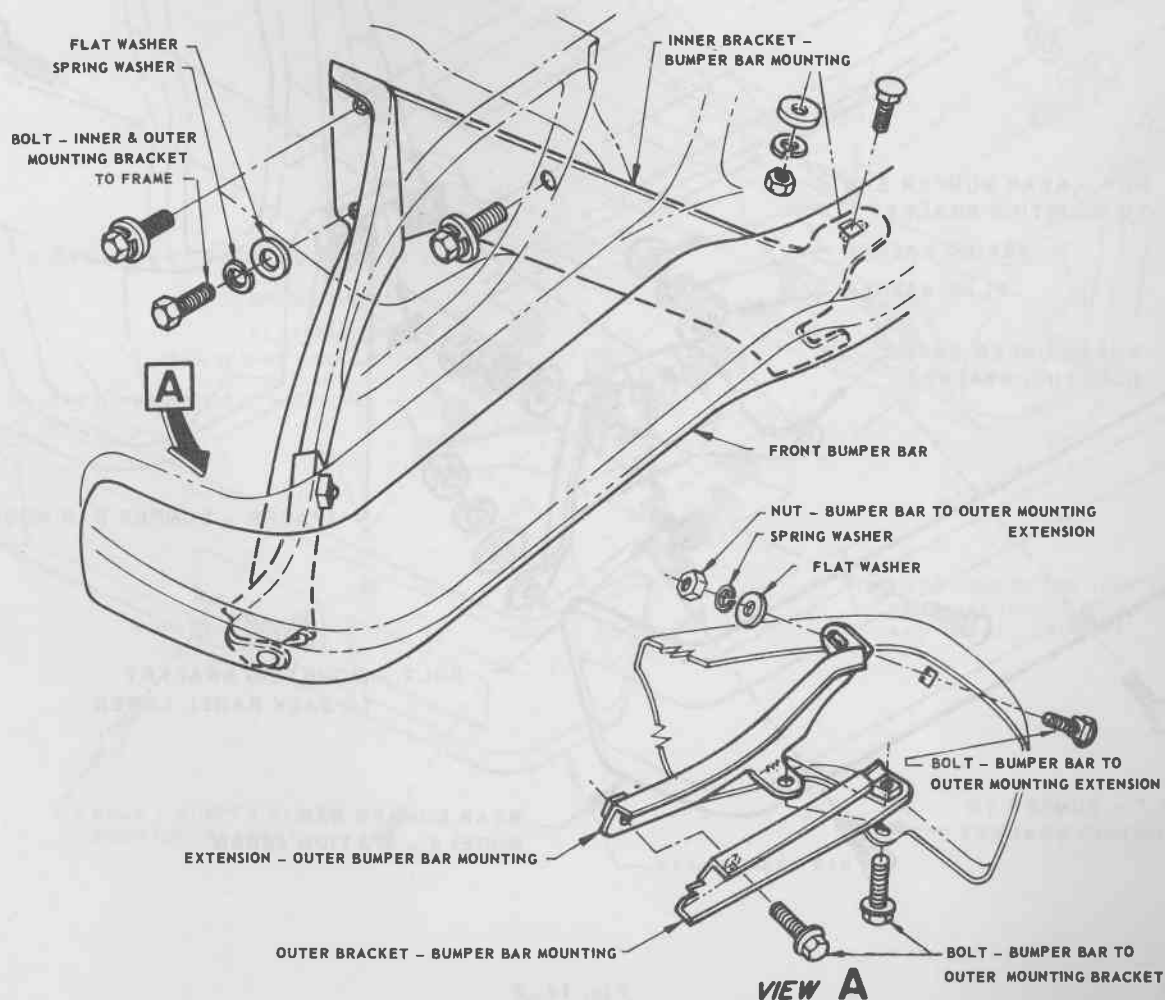


Fig. 14-1
FRONT BUMPER BAR ASSEMBLY

FRONT BUMPER BAR

Models - All

Removal

1. With an assistant to support front bumper bar assembly, remove bolts securing inner and

outer mounting brackets to partial perimeter front end frame (see Fig. 14-1) and place assembly on a clean protected surface.

2. Remove inner and outer mounting brackets from front bumper.

Installation

Reverse removal operations.

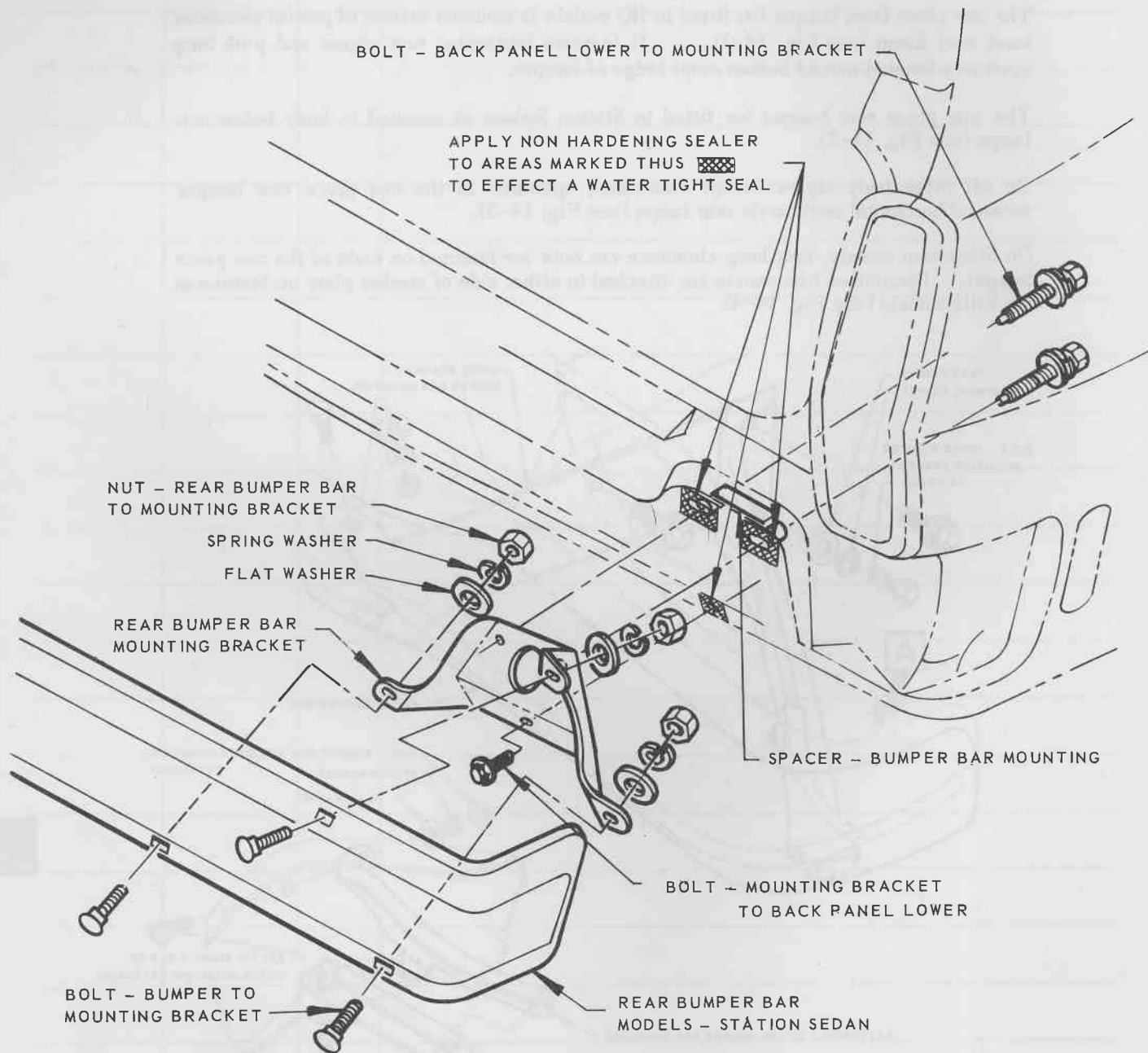


Fig. 14-2
REAR BUMPER BAR ASSEMBLY
MODELS - STATION SEDAN

REAR BUMPER BAR

Models - All

Removal

1. On all coupes and sedans except Statesman models, disconnect rear lamp wiring harness.
2. On all models and with an assistant to support rear bumper bar assembly, remove bolts securing bumper bar mounting bracket to body back panel lower (see Figs. 14-2, 14-3 or

14-4) and place assembly on a clean protected surface.

3. Remove bumper bar mounting brackets, rear licence plate lamp assemblies and on all coupes and sedans except Statesman, rear lamp assemblies.

Installation

Apply non hardening sealer around mounting bracket to body attaching holes prior to reversing removal operations.

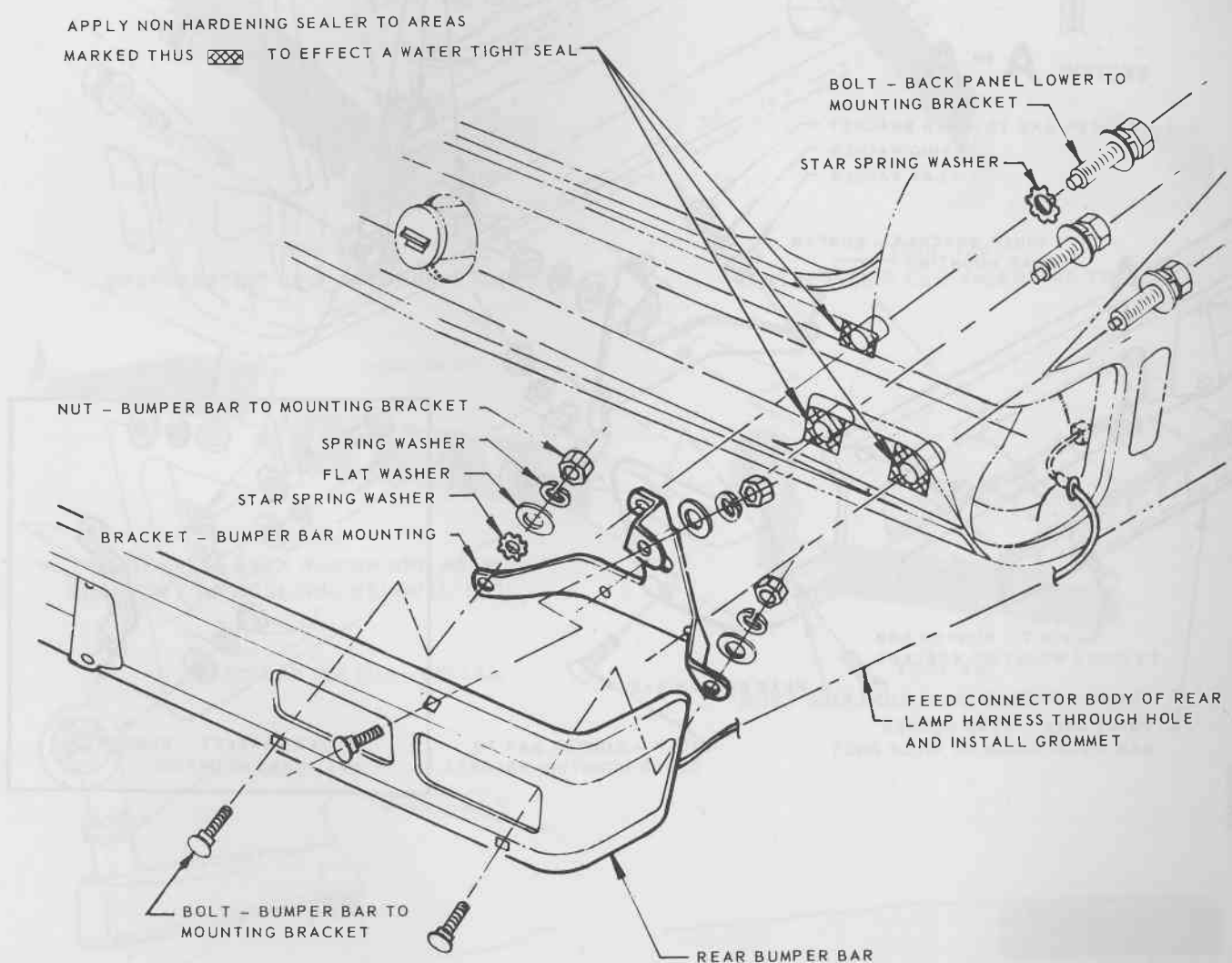


Fig. 14-3
REAR BUMPER BAR ASSEMBLY
MODELS - ALL EXCEPT STATION SEDAN & STATESMAN

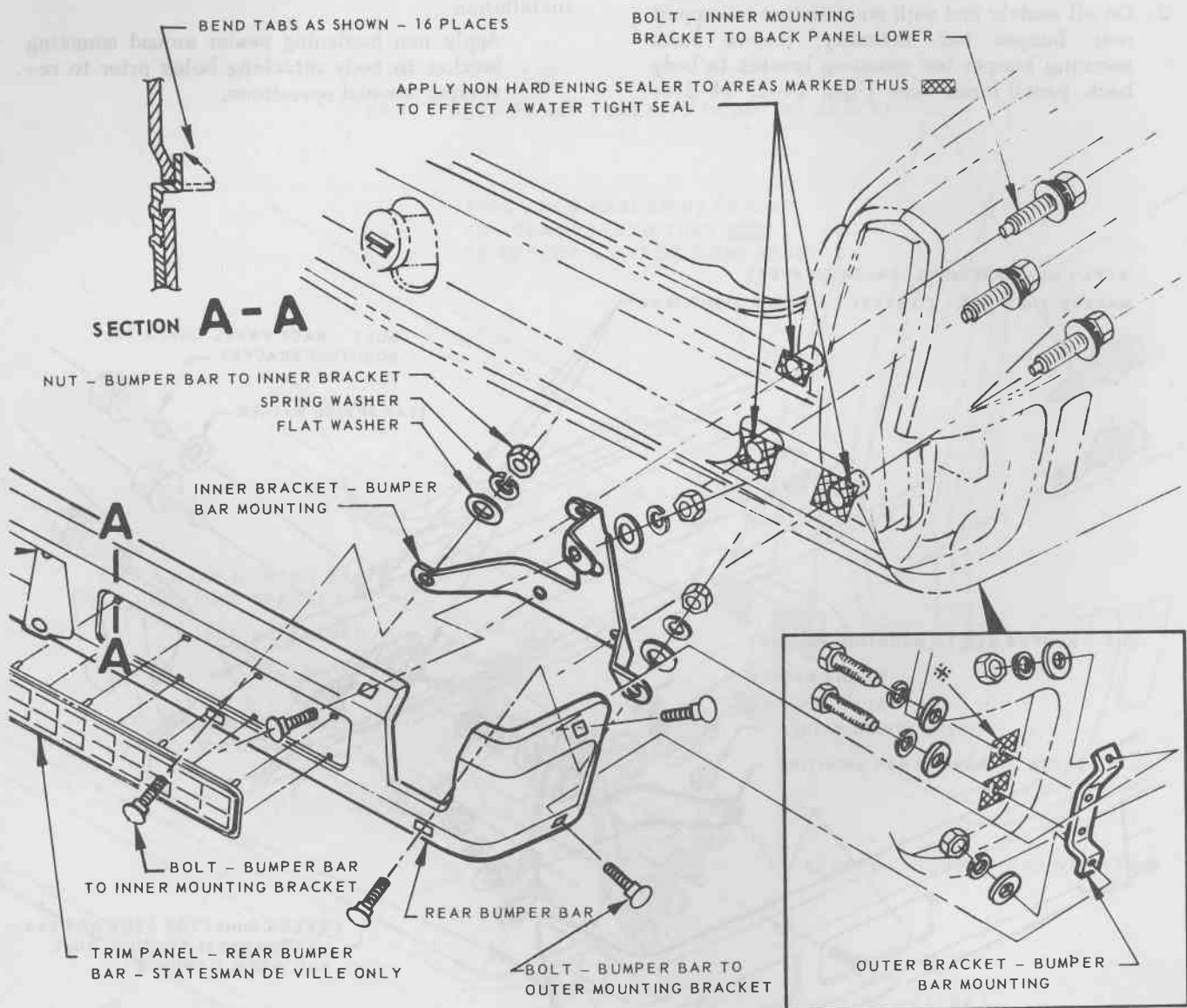
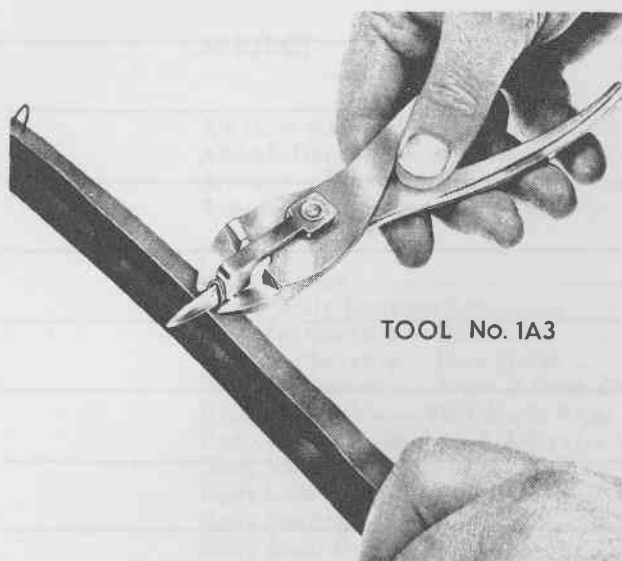


Fig. 14-4
REAR BUMPER BAR ASSEMBLY
MODELS - STATESMAN

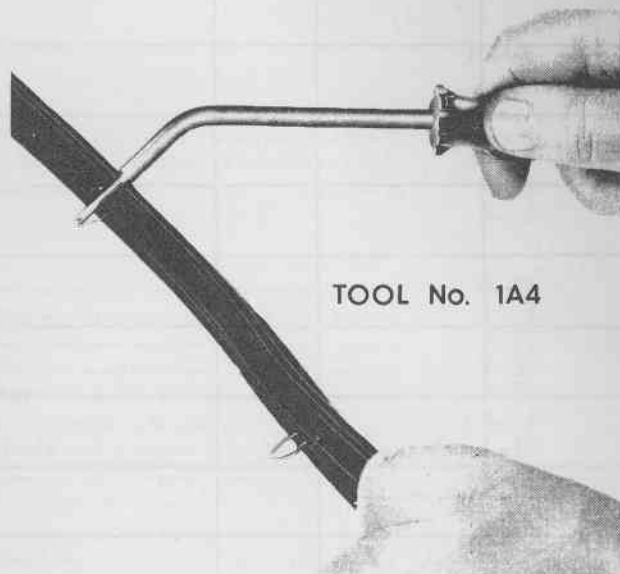
SECTION 15

SPECIAL TOOLS



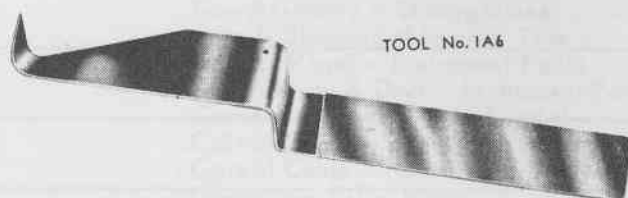
TOOL No. 1A3

TOOL 1A3
WEATHERSTRIP CLIP REFORMING TOOL



TOOL No. 1A4

TOOL 1A4
WEATHERSTRIP CLIP INSERTING TOOL



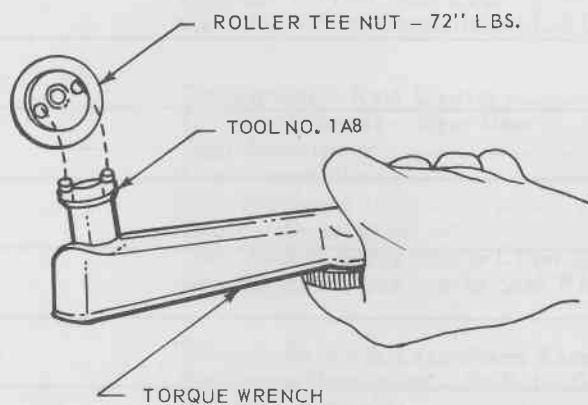
TOOL No. 1A6

TOOL 1A6
WINDSHIELD, BACK WINDOW AND REAR
QUARTER SIDE MOULDING REMOVAL TOOL



TOOL No. 1A7

TOOL 1A7
ROOF SIDE MOULDING REMOVAL TOOL



ROLLER TEE NUT - 72" LBS.

TOOL NO. 1A8

TORQUE WRENCH

TOOL 1A8
ROLLER TEE NUT INSTALLING TOOL



TOOL NO. 21812X
DOOR INTERIOR HANDLE REMOVAL TOOL

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